



RAJAS

August 1937.

Technological Bulletin,  
Series A, No. 38.

Indian Central Cotton Committee  
Technological Laboratory.

TECHNOLOGICAL REPORTS  
ON  
TRADE VARIETIES OF  
INDIAN COTTONS,  
1937

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BOMBAY :  
THE TIMES OF INDIA PRESS  
1937.

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## INTRODUCTION.

ONE of the main functions of the Technological Laboratory is to undertake under known and reproducible conditions, spinning tests on Indian cottons. Upto 1929, these tests were confined mostly to samples supplied by cotton breeders and agricultural officers of the Provincial Agricultural Departments. These samples represented, either new varieties which were under trial or cottons grown in connection with such field experiments as the effect of different amounts of irrigations, different rotation of crops, different dates of sowing, etc., etc. As most of the samples tested at the Laboratory for the Agricultural Departments are in the experimental stage, the results of the tests made on them are not published for general information, but are communicated only to the departments concerned. With the expansion of the Committee's schemes in the provinces and the general recognition of the importance of the Laboratory tests, the number of such samples went on increasing steadily, but there was a general feeling that the work of the Laboratory should also be made more directly useful to the trade and the industry. It was felt that this purpose would best be served by carrying out spinning tests at the Laboratory on such samples of representative trade varieties as form the bulk of the Indian cotton crop. In order to put this idea into effect arrangements were made with the East India Cotton Association, Ltd., Bombay, for the supply of fair average quality of different trade varieties of Indian cotton for which the results of spinning tests could be broadcast for general information. These tests which were first made on the 1929-30 crop, have since been repeated on the same varieties without a break in the past eight seasons. The samples for these tests are selected by the Standards Committee of the East India Cotton Association, who also very kindly value them and give their opinion regarding their staple, class, regularity, strength, etc., etc. The tests on these samples are made with two objects. In the first place, they place in the hands of the trade and the industry reliable information regarding the waste losses and the spinning performance of the chief representative types of Indian cotton. This information is available not only to merchants and spinners in India, but also to those in the foreign countries who import or wish to import Indian cotton for their use. Thus, the consumers of Indian cottons, both in India and abroad, obtain reliable information regarding the spinning quality of the different types of Indian cottons in each season. In the second place, as these tests are made every year on samples of fair average quality selected by an expert and authoritative body like the Standards Committee of the East India Cotton Association, their results taken over a number of years are useful in showing whether a particular variety of cotton is maintaining its quality or showing signs of improvement or deterioration. If any particular variety is found, from the data available for a sufficient number of years, to show signs of steady deterioration, which is regarded as being outside the seasonal fluctuation, then it is possible to undertake an investigation into the causes of this deterioration and to adopt

the necessary remedial measures. It is clear that, in the absence of any reliable data obtained under definitely known and reproducible conditions on samples of fair average quality, it would not be possible to say definitely whether or not any particular type is showing signs of deterioration. The deterioration may, therefore, prove undetectable for a number of years during which it might have been possible to counter it by securing a supply of pure seed or development of a new type. The following is a list of cottons supplied by the East India Cotton Association, Bombay, on which tests have been made at the Laboratory:—

Cottons received from the East India Cotton Association:

- |                |                   |
|----------------|-------------------|
| 1. C. P. No. 1 | 14. K. J. America |
| 2. Bazar       | 15. Western       |
| 3. Blackish    | 16. Fair Western  |
| 4. Nashed      | 17. Longgin       |
| 5. Lister      | 18. British       |
| 6. Mohr        | 19. Bazar         |
| 7. Pongoldever | 20. B. J. No.     |
| 8. Bazar       | 21. Goodgin       |
| 9. J. J. No.   | 22. In. No. 1     |
| 10. S. J. No.  | 23. K. J. No.     |
| 11. Nashed     | 24. A. R. K. No.  |
| 12. D. J. No.  | 25. A. R. B. No.  |
| 13. K. J. No.  | 26. A. R. J. No.  |

At the same time as the foregoing arrangement was made with the East India Cotton Association, Ltd., Bombay, it was also arranged with the Bombay Millowners' and the Ahmedabad Millowners' Associations, that some of their mill members would kindly supply to the Laboratory samples of early arrivals of different varieties of the Indian cotton crop. The object of making these tests was to place in the hands of the industry information regarding the waste losses and the spinning performance of different trade varieties in the early part of the season in order to enable the consumers to decide which of these cottons would be suitable for their mixings. These tests were begun in 1930-31, and have been continued up to the present season. In view of the fact, however, that sometimes a mill using a particular style of cotton in one season decided not to purchase the same style in the following season, a certain amount of discontinuity has occurred in some of these varieties. However, so far as possible, efforts have been made to obtain, in each season, samples of the same varieties so that the results of tests in the successive seasons may also be comparable. As regards the valuation of these samples, this was kindly done by the Grader (Major Ellis Jones) upto 1931-32, but in the following seasons the mills supplying the samples were requested to furnish their own valuation reports. The following is a list of the cottons tested at the Laboratory under this arrangement with the Bombay and Ahmedabad Millowners' Associations:—

## Cottons received from the Bombay Millowners' Association :—

- |                      |                       |
|----------------------|-----------------------|
| 1. Farm Westerns     | 11. Westerns          |
| 2. Bailhongal        | 12. Miraj             |
| 3. Broach            | 13. Surat             |
| 4. Karunganni        | 14. Navsari           |
| 5. Nandyal           | 15. Tiruppur Cambodia |
| 6. Northern Cambodia | 16. Hubli Kumpta      |
| 7. Bengals           | 17. Hubli Upland      |
| 8. Khandesh          | 18. Kampala (African) |
| 9. Ujjain            | 19. Busoga (African)  |
| 10. Moglai           | 20. Jinja (African)   |

During the current season Karunganni, Nandyal and Hubli Upland were not received under this head.

## Cottons received from the Ahmedabad Millowners' Association :—

- |            |         |
|------------|---------|
| 1. Jagadia | 3. Kadi |
| 2. Bawla   |         |

The plan followed in presenting the results of tests carried out on these cottons is very nearly the same as that adopted in the Technological Reports on Standard Indian Cottons. Each technological report gives the grader's valuation report, spinning master's report, and the table of spinning test results which show the waste losses, number of yarn breakages in the ring frame, the actual counts spun, the results of the lea test and the ballistic test, actual number of turns per inch, front roller and spindle speeds, drafts employed, estimate of yarn neppiness and yarn evenness and the physical conditions of temperature and humidity prevailing in the spinning room and the yarn testing room. There is, however, this difference between these reports and those on the Standard Indian Cottons that as fibre tests were not made on these trade varieties, these reports do not contain the fibre test results, nor any attempt has been made to summarise the results in the form of 'remarks.'

The supply of these samples together with the valuation reports has not been free from a certain amount of extra work on the part of those who have very kindly co-operated with me in these tests. My best thanks are therefore due to the members of the Standards Committee of the East India Cotton Association, Bombay, and its office-bearers and to the mills supplying the samples. My thanks are also due to Major Ellis Jones for valuing some of the samples, to Messrs. R.P. Richardson and V. V. Gupte for supervising the spinning tests and to Mr. V. Venkataraman for assisting me in the compilation of the test result tables.

N. A.

August 1937.

## 1.—C. P. No. 1 COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
664	C.P. No. 1 (Fine)	Wardha	1929-30.	2137	C.P. No. 1	Panderkora	1933-34.
665	C.P. No. 1 (Superfine)	Nagpur	1929-30.	2654	"	"	1934-35.
999	C.P. No. 1	Katol	1930-31.	3110	"	Nagpur	1935-36.
1336	"	Nagpur	1931-32.	3473	"	Panderkora	1936-37.
1724	"	"	1932-33.				

### I.—SPINNING TESTS.

#### 1. Treatment :—

- (a) *Blow-Room*.—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).  
1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.  
1934-35 onwards :—Same as above but spun from single hank roving on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :—

		C. P. No. 1.								
		1929-30 (Fine).	1929-30 (Superfine).	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	.. ..	Creamy-white.	Creamy to creamy- white; bright.	White to creamy- white; very bright.	Brightish creamy- white.	White to creamy- white.	White; bright.	White to creamy- white; brightish.	White to creamy- white.	White to creamy- white.
Cleanliness	.. ..	Fairly clean; fairly bright.	Clean.	Fairly clean.	Slightly stained; fairly clean.	Fairly clean.	Clean.	Clean.	Clean.	Fairly clean.
Feel	.. ..	Slightly harsh.	Typical harsh feel of its class.	Good.	Good.	Good and softish.	Rough.	Good.	Slightly rough.	Roughish.
Ginning and Neppi- ness.	.. ..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	.. ..	1.33 per cent. unginnedseeds.	0.3 per cent. unginned.	..	..	..	..	..	..	..
Card Sliver	.. ..	..	..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Good even.
Card Web	.. ..	..	..	Good.	Good.	Fairly even and nep- free.	Even and nep-free.	Good.	Good.	Good; nep- free.
Weight of 10 flat strips.	.. ..	..	..	Very light; 12.3 grams.	15.8 grams.	16.2 grams.	15.9 grams.	16.3 grams.	12.2 grams.	14.0 grams.
Remarks	.. ..	..	..	Fully-pressed.	..	..	..	..	..	..

##### (b) Yarn :—

	C. P. No. 1.								
	1929-30 (Fine).	1929-30 (Superfine).	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.
Evenness ..	Fairly uneven.	Fairly even.	Fairly even.	Somewhat uneven.	Fairly even.	Somewhat uneven.	Somewhat uneven.	Even.	Even.
Neppiness ..	Very little nep.	Free of nep.	Practically free.	Practically free.	Free of nep.	Nep-free.	Free of nep.	Almost free of nep.	Free of nep.
Slubbiness ..	Very little slab.	Free of slab.	..	Fairly slubby.	..	..	A little slubby.	..	..
Remarks ..	..	..	..	..	..	..	..	..	..

#### 3. Spinning Test Details and Results.—See Table 1 on page 3.

# TECHNOLOGICAL REPORTS

ON

COTTONS SUPPLIED BY

THE EAST INDIA COTTON ASSOCIATION LTD., BOMBAY.

These samples are of fair average quality of the representative trade varieties which form the bulk of the Indian Cotton crop. The samples are selected by the Standards Committee of the East India Cotton Association, who have also very kindly furnished the valuation reports regarding their staple length, class, regularity, strength, etc.

## II. REPORT OF THE

		1929-30 (Fine).	1929-30 (Superfine).	
Contract valued under	..	Fine C.P. No. 1.	Fine C.P. No. 1.	Fine C
Class ..	..	..	Superfine.	Fine to
Colour ..	..	..	Little creamy.	White.
Staple Length	..	..	3/4".	5/8"
" Strength	..	..	Stout.	Regula
Regularity ..	..	..	Fairly regular.	Regula
Value above or below Contract rate	Rs. 2 off Fine C.P. No. 1.	Rs. 2 off Fine C.P. No. 1.	Rs. 6 on Fine C.P. No. 1.	Rs. 2
Basis ..	..	..	Rs. 19 on Fine C.P. No. 3.	Rs. 10
Date of Valuation	..	18-1-30.	18-1-30.	20
Remarks ..	..	..	..	..

1934-35.	1935-36.	1936-37.
M. G. Oomra Hedge Contract No. 3, March 1936 delivery.	Fine M. G. Oomra Hedge Contract No. 3, March 1936 delivery.	Fine M. G. Oomra Hedge Contract No. 3, March 1937 delivery.
Superfine.	Superfine to Extra Superfine.	Barley fine.
at white.	Creamish white.	Creamy-white.
5".	5/8".	5/8".
	Fair.	Medium.
	Regular.	Fairly regular.
20 on.	Rs. 22 on.	Rs. 13 on.
M. G. Oomra Hedge Contract No. 3, March 1935 delivery Rs. 226.	Fine M. G. Oomra Hedge Contract No. 3, March 1936 delivery Rs. 170.	Fine M. G. Oomra Hedge Contract No. 3, March 1937 delivery, Rs. 205.
30-1-35.	2-3-36.	28-1-37.
..	..	..



Table 1.—SPINNING TEST RESULTS FOR C. P. No. 1 COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.)	RELATIVE HUMIDITY (%).				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss,†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	LEA.			BALISTIC.			Tensures Class.			Knots per yard.	Turns per Inch Actual.	Spinning Room.	Testing Room.
															Counts Actual.	Strength (lbs.).	Count-Strength.	Counts Actual.	Work of Machine (Inch-lb.).	Count-Work.							
004	C.P. No. 1 (Fine.)	1929-30	4-2-30	10A	10	8.0	7.8	0.6	15.6	110	172	..	5.10	42.03	10.1	46.8	473	10.2	185.8	1589	0	1.5	12.1	82	07		
004	"	1929-30	4-2-30	10B		..	..	..	..	50	191	..	5.21	44.29	0.7	91.2	623	0.7	211.0	2047	5	1.8	13.7	80	05		
005	C.P. No. 1 (Superfine)	1929-30	5-2-30	10A	10	6.7	8.8	0.3	15.2	50	190	..	5.42	42.63	10.1	63.3	639	10.2	185.2	1889	5	1.5	12.1	82	00		
005	"	1929-30	5-2-30	10B		..	..	..	..	30	193	..	5.53	44.29	0.8	411.0	1423	10.0	220.2	2202	5	2.0	13.0	82	01		
090	C.P. No. 1	1930-31	12-3-31	10A	10	6.8	8.0	0.6	13.9	60	107	0900	5.21	42.63	10.3	49.4	499	10.3	190.0	1927	4	1.2	12.0	80	07		
090	"	1930-31	12-3-31	10B		..	..	..	..	0	103	7500	5.21	44.29	0.9	101.1	1004	9.0	232.8	2305	4	1.5	13.0	81	06		
1336	C.P. No. 1	1931-32	13-5-32	10A	10	5.9	6.0	0.3	14.0	13	170	2900	5.44	42.63	9.8	65.3	640	10.0	203.8	2053	4	1.0	12.1	91	09		
1336	"	1931-32	14-5-32	10B		..	..	..	..	30	192	7600	5.56	44.29	0.8	100.9	659	10.1	235.0	2279	5	1.2	13.8	89	06		
1724	C.P. No. 1	1932-33	1-4-33	10A	10	6.7	10.0	0.4	16.4	04	171	6850	5.20	42.63	9.8	73.0	704	10.1	220.8	2230	4	0.5	12.1	85	72		
1724	"	1932-33	1-4-33	10B		..	..	..	..	64	191	7700	6.41	44.29	10.1	105.3	4064	10.1	226.0	2350	4	1.0	13.8	87	00		
1724	"	1932-33	3-4-33	120		..	..	..	..	109	182	7700	5.92	45.31	12.2	76.1	623	12.4	189.0	2351	4	0.8	14.0	85	09		
2137	C.P. No. 1	1933-34	14-2-34	10A	10	3.8	12.0	0.2	15.6	11	170	6000	5.35	42.63	10.0	03.3	633	9.9	246.8	2440	4	1.0	12.5	82	06		
2137	"	1933-34	14-2-34	10B		..	..	..	..	13	106	7650	5.35	44.29	0.9	110.2	1160	10.0	237.0	2376	5	1.0	14.0	82	70		
2054	C.P. No. 1	1934-35	8-2-35	10A	10	6.0	10.4	0.1	16.7	36	170	6100	5.12	42.63	10.4	41.0	136	10.2	106.2	2032	4	1.0	12.0	80	09		
2054	"	1934-35	8-2-35	10B		..	..	..	..	0	100	7600	5.12	44.29	10.2	01.7	635	10.2	216.2	2236	5	0.8	13.0	80	03		
3110	C.P. No. 1	1935-36	9-3-36	10A	10	4.1	9.8	0.1	13.6	0	194	6900	5.20	42.63	10.5	90.8	1018	10.5	244.8	2570	3	0.5	12.2	80	07		
3110	"	1935-36	9-3-36	10B		..	..	..	..	0	204	8000	5.29	44.29	10.5	140.0	1633	10.4	269.8	2700	3	0.8	13.8	82	05		
3110	"	1935-36	14-3-36	12A		..	..	..	..	15	183	7300	5.30	43.92	12.6	71.4	000	12.5	188.8	2376	4	1.0	13.5	81	01		
3473	C.P. No. 1	1936-37	1-2-37	10A	16	6.8	10.2	0.3	16.7	27	106	7000	5.48	42.63	10.0	72.0	726	10.2	231.1	2301	3	0.5	12.2	80	00		
3473	"	1936-37	1-2-37	10B		..	..	..	..	18	200	8300	5.48	44.29	10.1	117.5	1187	0.8	278.4	2728	3	0.8	13.8	81	09		
3473	"	1936-37	4-2-37	12B		..	..	..	..	51	183	7700	0.71	44.03	12.8	53.8	630	12.8	180.0	2361	4	0.8	14.2	81	03		

\* The ring frame front roller diameter—7/8". Diameter of rings—1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

\* The ring frame spindle speed—7/8". Diameter of rings—1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 2.—BERAR COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
670	Berar	(Fine)		1723	Berar	Amraoti	1932-33.
		Karanja	1929-30.	2136	"	Shegaon	1933-34.
663	"	(Superfine)		2656	"	Akote	1934-35.
		Malkapur	1929-30.	3264	"	Akola	1935-36.
1004	"	Amraoti	1930-31.	3474	"	Anjangaon	1936-37.
1335	"	Murtizapur	1931-32.				

### I. SPINNING TESTS.

#### 1. Treatment:—

(a) *Blow-room*—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 and 1936-37:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report:—

(a) *Cotton*:—

BERAR.									
	1929-30 (Fine).	1929-30 (Superfine).	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour ..	Cream - white	Creamy to creamy- white.	White to creamy- white; bright.	Creamy-white	White to creamy- white.	White; bright.	White to creamy- white.	Creamy-white.	Creamy-white to white.
Cleanliness ..	Fairly leafy.	Fairly leafy.	Trifle stained; a little leafy.	Somewhat stained; leafy.	Leafy ..	Somewhat leafy.	Leafy ..	Slightly stained; leafy.	Fairly unclean a little stained; contains leaf.
Feel ..	Harsh.	On the rough side.	Slightly harsh.	Roughish ..	Good ..	Good-bodied.	Roughish ..	Good ..	Fairly good.
Ginning and Neppiness ..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	..	A little knot- tied.	Well-ginned.
Seeds ..	1.25 per cent. unginned.	1.75 per cent. unginned.	0.75 per cent. unginned.	..	A few seeds.	..	Many un- ginned seeds.	..	..
Card sliver ..	..	..	..	Fairly clean ..	Clean ..	Clean ..	Clean ..	Almost clean.	Good soft contains little leaf.
Card web ..	..	..	..	Good ..	Fairly even and nep-free.	Even and nep-free.	Good ..	A little neppy and cloudy.	Good; almost nep-free.
Weight of 10 flat strips ..	..	..	..	16.4 grams ..	19.0 grams ..	14.6 grams ..	16.5 grams ..	23.3 grams.	19.4 grams.
Remarks ..	Regularity in staple length and strength of staple are both fair.	Excessive yarn break- age; spin- ning speed lowered.	..	Fully-pressed.	..	..	..	..	..

(b) *Yarn*:—

BERAR.									
	1929-30 (Fine).	1929-30 (Superfine).	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Almost clean.	Fairly clean.
Evenness ..	Fairly even ..	Fairly uneven	Fairly even ..	Somewhat uneven.	Fairly even ..	Fairly uneven	Somewhat uneven.	Even.	Fairly even.
Neppiness ..	A little neppy	Almost free ..	Free ..	Practically free.	Practically nep-free.	Nep-free ..	Free of nep.	Nep-free.	Free of nep.
Subbiness ..	Fairly slubby	Trifle slubby	Somewhat slubby.	Fairly slubby.	..	..	A little slubby	..	A little slubby
Remarks ..	..	A poor yarn; many raw spots.	..	..	..	..	..	..	..

3. *Spinning Test Details and Results*.—See Table 2 on page 6.

## II. REPORT OF THE STANDARDS COMMITTEE FOR BERAR COTTON.

BERAR.									
	1928-30 (Fine).	1929-30 (Superfine).	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under ..	Fine Berar.	Fine Berar.	Fine Oomra No. 3.	F. G. M. G. Branch No. 2.	F. M. G. Oomra Hedge No. 3.	F. M. G. Oomra (Berar) No. 3.	Fine M. G. Oomra Hedge No. 3, March 1935, delivery.	Fine M. G. Oomra H. C. No. 3, July 1936, delivery.	Fine M. G. Oomra H. C. No. 3, March 1937, delivery.
Class ..	Superfine.	Superfine to Extra superfine.	Fine.	Fully good to fine.	Superfine.	Superfine.	Extra superfine.	Fine.	Fully good to fine.
Colour ..	White.	Normal.	Creamy-white.	Bluish white with yellow stains.	White.	White.	White.	Grayish white.	Dull white.
Staple length ..	5/8".	5/8".	1/2".	5/8".	5/8".	5/8".	5/8".	5/8".	5/8".
" strength ..	Strong.	Weakish.	Weak.	Good.	Fair.	Fair.	Fair.	Good.	Good.
Regularity ..	Irregular.	Irregular.	Irregular.	Regular.	Regular.	Regular.	Fair.	Regular.	Fairly regular.
Value above or below contract rate.	Rs. 8 on.	Rs. 5 on Fine Berar.	Rs. 1 on.	Rs. 14 off.	Rs. 5 on.	Rs. 3 on.	Rs. 7-8 on.	Par.	Pass.
Basis ..	Par. Fine No. 3.	Par. Fine No. 3.	Oomra Rs. 188.	Rs. 176.	Settlement rate of F. M. G. Oomra Hedge Contract No. 3, March 1933 delivery Rs. 167.	F. M. G. Oomra (Berar) No. 3, March 1934 delivery Rs. 190.	Fine M. G. Oomra Hedge No. 3, March 1936 delivery Rs. 220.	Fine M. G. Oomra H. C. No. 3, July 1936 delivery Rs. 208.	Fine M. G. Oomra H. C. No. 3, March 1937, delivery Rs. 205.
Date of Valuation ..	23-1-30.	18-1-30.	5-3-31.	9-5-32.	25-3-33.	7-2-34.	30-1-35.	24-6-36.	26-1-37.
Remarks ..	..	..	..	Black leaf.	..	..	..	..	..

Table 2.—SPINNING TEST RESULTS FOR BERAR COTTON.

1			2			3			4			5			6			7			8			9			10			11			12			13			14			15			16			17			18			19			20			21			22			23			24			25			26			27		
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				I.E.A.						BALISTO.						Kevness Class.	Neeps per yard.	Turns per inch Actual.	Spinning Room.	TEMPERATURE (°F)	RELATIVE HUMIDITY (%)																																																	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch.	Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.																																																												
670	Fine	1929-30	8-2-30	10A	10	11.1	0.0	0.5	19.5	110	175	..	5.21	12.63	9.0	49.5	400	9.0	168.8	1671	4	2.0	12.0	80	65																																																							
670	Berar	1929-30	8-2-30	10B	10	..	..	..	..	113	104	..	5.32	14.29	9.0	83.5	827	10.1	184.0	1858	5	2.2	13.6	80	64																																																							
663	Superfine Berar	1929-30	4-2-30	10A	9	12.3	0.4	0.5	20.9	80	172	..	5.21	12.63	10.3	44.8	461	10.3	143.4	1477	6	1.5	12.0	82	67																																																							
663	"	1929-30	4-2-30	10B	10	..	..	..	..	30	103	..	5.21	14.29	10.1	79.0	804	10.1	173.0	1790	0	1.8	13.6	80	65																																																							
1004	Berar	1930-31	16-3-31	10A	10	9.8	9.6	0.8	19.1	200	180	6350	5.00	12.63	10.2	31.4	320	10.3	132.8	1368	5	1.0	12.0	84	65																																																							
1004	"	1930-31	17-3-31	10B	10	..	..	..	..	100	188	7250	6.10	14.29	10.2	59.0	602	10.2	186.0	1807	5	2.0	13.7	83	60																																																							
1335	Berar	1931-32	19-5-32	10A	10	8.0	10.2	0.6	17.8	145	170	5000	5.43	12.63	10.2	34.0	347	10.2	170.4	1700	5	0.5	12.2	01	69																																																							
1335	"	1931-32	14-5-32	10B	10	..	..	..	..	173	182	7200	5.43	14.29	9.8	73.5	720	10.2	195.2	1901	4	1.0	13.8	98	05																																																							
1723	Berar	1932-33	1-4-33	10A	10	12.0	11.9	0.0	22.9	136	171	5850	5.10	12.63	9.8	40.5	485	9.8	199.0	1940	4	1.2	12.3	85	72																																																							
1723	"	1932-33	1-4-33	10B	10	..	..	..	..	101	101	7700	5.20	14.29	0.8	84.5	828	9.9	208.4	2063	4	1.0	14.0	87	60																																																							
2136	Berar	1933-34	14-2-34	10A	10	8.0	12.3	0.4	19.6	55	176	6000	5.47	12.63	10.1	63.0	636	10.3	210.4	2107	4	1.0	12.2	82	66																																																							
2136	"	1933-34	14-2-34	10B	10	..	..	..	..	44	106	7650	5.47	14.29	9.8	111.7	1095	16.0	239.2	2392	5	0.8	13.9	83	70																																																							
2656	Berar	1934-35	8-2-35	10A	10	10.2	10.7	0.3	20.0	55	180	6250	5.12	12.63	10.0	46.8	468	10.1	104.4	1063	5	1.2	12.2	83	69																																																							
2656	"	1934-35	8-2-35	10B	10	..	..	..	..	36	101	7500	5.25	14.29	10.2	82.8	845	10.0	210.0	2100	5	1.0	13.8	81	68																																																							
3264	Berar	1935-36	6-7-36	10A	10	0.5	11.8	0.2	20.4	18	108	7000	5.34	12.63	10.1	62.8	634	10.2	221.6	2200	3	1.0	12.0	87	70																																																							
3264	"	1935-36	7-7-36	10B	10	..	..	..	..	0	200	7850	5.34	11.29	10.1	106.0	1077	10.1	257.0	2602	3	0.6	13.6	80	75																																																							
3474	Berar	1936-37	2-2-37	8A	10	10.6	12.7	0.4	22.3	3	188	5800	4.89	11.31	8.1	58.9	477	7.9	240.8	1902	3	0.8	10.7	80	65																																																							
3474	"	1936-37	2-2-37	8B	10	..	..	..	..	0	107	6350	4.89	12.63	7.9	115.9	916	7.9	200.6	2307	3	0.5	12.0	79	67																																																							
3474	"	1936-37	2-2-37	10B	10	..	..	..	..	45	106	7700	5.01	11.29	0.8	88.2	861	10.0	201.1	2014	1	0.5	13.7	81	60																																																							

\* The ring frame front roller diameter—7/8". Diameter of rings—1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

### 3.—KHANDESH COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
662	Khandesh (Superfine)	Dhulia.	1929-30.	1722	Khandesh	Dhulia.	1932-33.
661	" (Fine)	Amalner.	1929-30.	2138	"	"	1933-34.
1001	"	Dhulia.	1930-31.	2655	"	"	1934-35.
1432	"	Chopda.	1931-32.	3265	"	Amalner.	1935-36.
				3475	"	Chalisgaon.	1936-37.

#### I. SPINNING TESTS.

##### 1. Treatment :—

- (a) *Blow-room*.—Upto 1934-35 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks. Cage exhaust, Hopper feeder Scutcher (3 times).
- (b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

##### (a) Cotton :—

KHANDESH.									
	1929-30. (Superfine).	1929-30. (Fine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	.. Creamy-white; dull.	.. Creamy-white; dull.	.. White to creamy-white; fairly bright.	.. Dull creamy.	.. White to creamy-white.	.. White to creamy-white.	.. White to creamy-white.	.. Creamy-white to creamy.	.. White to creamy-white.
Cleanliness	.. Fairly leafy; a little stained.	.. Fairly leafy (very fine leaf). A triflo stained	.. A little leafy; occasional spot of stain.	.. Leafy	.. Leafy	.. Leafy; occasionally stained.	.. Leafy	.. Leafy; stained.	.. Leafy; a triflo stained
Feel	.. Rough	.. Roughish	.. Good	..	.. Good softish.	.. Good	.. Slightly rough.	.. Good.	.. Roughish
Ginning and neppiness.	.. Well-ginned	.. A fair amount of sand.	.. Well-ginned	.. Fairly well-ginned.	.. Well-ginned	.. Well-ginned	.. Well-ginned	.. Somewhat knotted.	.. Well-ginned.
Seeds	.. 0.9 % unginned.	.. 1 % unginned seeds.	..	.. 1.4 % unginned.	..	..	..	.. Few unginned seeds.	..
Card sliver	.. Very clean	..	.. Clean	.. Clean	.. Clean	.. Clean	.. Clean	.. Little leafy.	.. Good; Leafy
Card web	.. Clear	.. Clear	.. First class	.. Fairly good.	.. Even and nep-free.	.. Even and nep-free.	.. Good	.. Trifle neppy and cloudy.	.. Good; nep-free a little leafy.
Weight of ten flat strips.	15.1 grams.	15.3 grams.	10.1 grams very light.	15.8 grams	14.8 grams	15.2 grams	17.1 grams	24.5 grams.	14.6 grams.
Remarks	.. Staple even and strong.	.. Staple short but regular in length and fairly strong.	..	..	..	..	..	.. A wasty sample.	..

##### (b) Yarn :—

KHANDESH.									
	1929-30. (Superfine).	1929-30. (Fine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	.. Clean	.. Clean	.. Clean	.. Clean	.. Clean	.. Almost clean.	.. Clean	.. A little leafy.	.. Fairly clean.
Evenness	.. Fairly even	.. Fairly even	.. Fairly even	.. Even	.. Even	.. Fairly uneven.	.. Even in the lower count.	.. Fairly even.	.. Even.
Neppiness	.. A little neppy	.. A little neppy	.. Fairly nep-free	.. Practically nep-free.	.. Nep-free	.. Nep-free	.. Fairly free of nep.	.. Fairly free of nep.	.. Almost free of nep.
Slubbiness	.. Somewhat slubby.	.. Fairly slubby.	..	..	..	..	.. A little slubby.	..	..
Remarks	.. Slubbiness more prominent than neppiness.	..	..	..	..	..	..	..	..

##### 3. Spinning Test Details and Results.—See Table 3 on page 9.

## II. REPORT OF THE STANDARDS COMMITTEE FOR KHANDESH COTTON.

8

KHANDESH.									
	1929-30. (Superfine.)	1929-30. (Fino.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under ..	Fine Khandesh.	Fine Khandesh.	Fine Oomra No. 3.	F. G. M. G. Broach No. 2.	Fino M. G. Oomra Hedge No. 3.	Fino M. G. Oomra (Berar) H.C. No. 3.	Fine M. G. Oomra Hedge No. 3, March 1935 delivery.	Fine M. G. Oomra H.C. No. 3, July 1936 delivery.	Fine M. G. Oomra H.C. No. 3, March 1937 delivery.
Class ..	..	Fino to Superfine.	Superfine.	Fully good.	Superfine.	Fine.	Barely fine.	Fully good.	Superfine.
Colour ..	..	Dull to average.	Dull white.	Brownish with stains.	White.	White.	Whitish.	Dull white.	Greyish.
Staple Length ..	..	1 1/2".	5/8".	9/16".	5/8".	1 1/2".	5/8".	5/8".	11/16".
Staple Strength ..	..	Fair.	Fair.	Very weak.	Fair.	Fair.	Fair.	Fair.	Good.
Regularity ..	..	Normal.	Regular.	Irregular.	Regular.	Regular.	Fair.	Regular.	Regular.
Valued above or below contract rate.	..	Rs. 3 on Fine Khandesh.	Rs. 2 on.	Rs. 15 off.	Rs. 2 on.	Rs. 4 off.	Par.	Rs. 10 off.	Pass.
Basis ..	..	Rs. 7 off Fine Oomra No. 3.	Rs. 188.	Rs. 219.	Settlement rate of Fine M. G. Oomra Hedge Contract No. 3, March 1933 delivery, Rs. 197.	Fine M. G. Oomra (Berar) H.C. No. 3, March 1934 delivery, Rs. 190.	Fino M. G. Oomra Hedge Contract No. 3, March 1935 delivery, Rs. 226.	Fine M. G. Oomra H.C. No. 3, July 1936 delivery, Rs. 208.	Fine M. G. Oomra H.C. No. 3, March 1937 delivery, Rs. 205.
Date of Valuation ..	18-1-30.	18-1-30.	5-3-31.	17-5-32.	25-3-33.	7-2-34.	30-1-35.	24-6-36.	26-1-37.
Remarks ..	..	..	Slightly black leafy.	Poor stylo cotton being end of season.	..	..	..	..	..

## II. REPORT OF THE STANDARDS COMMITTEE FOR NANDED.

11

NANDED.									
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under	F. G. Branch No. 2	F. G. Branch No. 2	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	
Class	Fully good to fine	Fully good	Fine	Fine	Fully good	Fine	Fine	Good.	
Colour	A little dull	Grayish	Considerably bluish white and stains.	Bluish white	Grayish white	Grayish white	Dull whitish.	White.	
Staple Length	15/16 inch	5/8 inch	3/4 inch	7/8 inch	Full 7/8 inch	7/8 inch	7/8 inch.	7/8 inch.	
Staple Strength	Very strong	Fair	Fair	Good	Good	Good	Fair to good.	Good.	
Regularity	Regular	Irregular	Irregular	A bit irregular	Regular	Irregular	Irregular.	Slightly irregular	
Value above or below contract rate	Rs. 40 on F. G. Branch April/May	Rs. 31 off	Rs. 15 on	Rs. 15 on	Rs. 25 on	Rs. 60 on	Rs. 25 on.	Rs. 20 on.	
Basis		Rs. 222	Rs. 175	Settlement rate of F. G. M. G. Branch	F. G. M. G. Branch	F. G. M. G. Branch	F. G. M. G. Branch	F. G. M. G. Branch	
				F. G. M. G. Branch	F. G. M. G. Branch	F. G. M. G. Branch	F. G. M. G. Branch	F. G. M. G. Branch	
Date of Valuation	28-1-30	5-3-31	9-5-32	25-3-33	15-3-34	20-3-35	2-3-36	10-3-37.	
Remarks	Not so silky or waxy as F. G. M. G. Latur.	Black leaf						With some black leaf.	

Table 4.—SPINNING TEST RESULTS FOR NANNED COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).	
				Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Packages per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	YEL.			HABITAT.			Evenness Class.	Steps per yard	Turns per Inch Actual.	Spiraling Room.	Spiraling Room.			
													Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (Inch-lb.)	Count-Work Product.								
669	Nanded ..	1929-30	6-2-30	11.5	9.6	0.2	22.0	30	191	..	5.21	17.08	20.0	81.8	1036	20.4	119.2	2132	4	4.2	17.2	81	81	55	55	
669	Nanded ..	1929-30	7-2-30	..	..	..	..	0	193	..	5.32	20.23	10.8	84.4	1071	19.8	125.0	2175	4	4.2	10.2	82	82	60	60	
1003	Nanded ..	1930-31	14-3-31	13.0	8.7	0.7	21.9	10	189	7400	4.07	13.02	12.1	77.0	832	12.1	205.8	2400	3½	1.7	13.4	81	81	65	67	
1003	Nanded ..	1930-31	16-3-31	..	..	..	..	47	160	7350	5.38	15.07	15.8	41.0	657	10.1	118.0	1900	5	3.2	15.3	80	80	63	63	
1003	Nanded ..	1930-31	16-3-31	..	..	..	..	80	172	8300	5.53	18.10	10.8	50.4	647	16.8	119.4	2000	5	2.2	17.5	82	82	65	69	
1338	Nanded ..	1931-32	10-5-32	9.7	10.0	0.5	19.1	87	187	7350	5.31	13.92	12.1	65.3	700	11.9	180.0	2215	3	1.2	13.4	90	90	07	64	
1338	Nanded ..	1931-32	18-5-32	..	..	..	..	125	178	8600	5.06	17.03	10.2	50.0	907	16.0	129.8	2061	4	1.5	17.4	91	91	71	60	
1725	Nanded ..	1932-33	3-4-33	13.8	9.7	0.4	22.5	24	191	8450	5.43	16.07	15.8	99.1	1520	15.8	177.2	2800	3	2.0	15.2	86	86	05	63	
1725	Nanded ..	1932-33	3-4-33	..	..	..	..	63	180	9200	5.43	17.98	19.8	72.8	1441	20.2	120.2	2428	4	1.0	17.2	88	88	05	63	
1725	Nanded ..	1932-33	5-4-33	..	..	..	..	62	171	9260	6.54	10.73	23.0	54.4	1390	24.1	90.6	2400	4	1.6	18.0	87	87	61	70	
2195	Nanded ..	1933-34	20-3-34	13.3	10.9	0.6	23.0	47	193	8150	6.10	17.03	10.8	83.3	1641	10.5	134.4	2621	3	2.5	17.2	83	83	60	72	
2195	Nanded ..	1933-34	22-3-34	..	..	..	..	59	170	9150	6.02	10.73	23.8	62.1	1478	24.0	103.0	2496	4	3.5	19.1	84	84	71	72	
2195	Nanded ..	1933-34	22-3-34	..	..	..	..	73	140	9060	7.27	23.11	30.2	41.0	1256	30.0	80.8	2472	0	3.0	22.2	86	86	70	70	
2712	Nanded ..	1934-35	6-4-35	11.7	12.8	0.5	23.1	30	191	9100	5.83	17.09	20.4	63.7	1209	20.0	123.2	2464	3	4.8	17.2	83	83	69	65	
2712	Nanded ..	1934-35	8-4-35	..	..	..	..	45	174	9600	5.44	10.73	24.1	61.1	1232	22.0	106.0	2427	4	4.2	18.0	83	83	70	62	
2712	Nanded ..	1934-35	8-4-35	..	..	..	..	43	130	8830	6.81	23.26	20.7	45.7	1357	29.7	85.2	2530	5	5.8	22.0	85	85	70	68	
3111	Nanded ..	1935-36	9-3-36	0.1	8.5	0.3	17.0	5	190	9250	6.10	17.08	20.2	87.0	1770	20.0	127.4	2624	4	1.8	10.8	82	82	64	61	
3111	Nanded ..	1935-36	10-3-36	..	..	..	..	0	174	9100	5.78	19.73	23.7	67.2	1593	24.3	108.2	2629	4	1.2	18.8	86	86	67	64	
3111	Nanded ..	1935-36	10-3-36	..	..	..	..	17	153	9100	7.29	21.86	30.7	41.3	1360	30.5	81.4	2483	5	2.2	21.1	81	81	67	63	
3517	Nanded ..	1936-37	5-4-37	15.1	11.2	0.6	25.0	10	192	9100	6.10	17.08	20.1	78.3	1574	20.2	120.8	2501	3	3.5	17.2	83	83	65	68	
3517	Nanded ..	1936-37	1-4-37	..	..	..	..	0	172	9500	5.30	10.73	23.4	62.0	1465	24.1	104.0	2506	4	3.5	18.8	84	84	60	66	
3517	Nanded ..	1936-37	3-4-37	..	..	..	..	36	160	9450	6.79	21.86	20.9	39.0	1484	31.3	82.0	2507	5	2.8	20.9	80	80	60	68	

\* Diameter of ring frame front roller—1 inch. Diameter of rings—1½ inch.  
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.



### 5.—LATUR COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Season.	Sample No.	Cotton.	Season.
668	Latur	1929-30.	2194	Latur	1933-34.
1002	"	1930-31.	2713	"	1934-35.
1339	"	1931-32.	3112	"	1935-36.
1726	"	1932-33.	3755	"	1936-37.

#### I. SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room*.—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).  
1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.  
1934-35 onwards:—Same as above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

###### (a) Cotton :—

LATUR.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. .. Creamy-white bright.	Creamy-white	Creamy	Dullish white to creamy-white.	Creamy-white	White to creamy-white; brightish.	White.	Creamy-white	
.. .. Leafy	Leafy; stained	Very leafy (large size leaf); slightly stained.	Very leafy	Leafy; a little stained.	Leafy	Very leafy; a little stained.	Very leafy	
.. .. Good soft	Soft silky	..	Soft	Good	Good	Good.	Fair	
.. .. Very well-ginned.	Well-ginned	Fairly well-ginned.	Well-ginned	Fairly well-ginned.	Well-ginned	Well-ginned.	..	
.. .. 1.5%	1.5%	1.2%	..	..	..	..	Some seeds	
.. .. Clean	Clean	Almost clean	Somewhat leafy.	Fairly clean	Almost clean	Clean.	Leafy	
.. .. Clear	Good	Good	Even, nep-free and shed much leaf.	Good	Fairly good	Even; nep-free.	Neppy	
.. .. 14.0 grams	17.6 grams	17.9 grams	19.5 grams	20.8 grams	20.7 grams	13.7 grams.	34.5	
.. .. Good sample; staple fairly fine and strong.	..	..	Gave a leafy lap.	..	..	..	..	

###### (b) Yarn :—

LATUR.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. .. Clean	Clean	Fairly clean	Almost clean	A little leafy	Fairly clean	Clean.	A little leafy	
.. .. Even	Even	Even	Even	Even in the two lower counts.	Even	Fairly even.	Fairly even	
.. .. A little neppy.	A little neppy.	Almost free of nep.	Practically free of nep.	Somewhat neppy.	A little neppy.	Slightly neppy.	Neppy	
.. ..	..	..	Shows an occasional slab.	..	Slightly slubby.	..	..	
.. ..	..	..	..	..	..	..	..	

3. *Spinning Test Details and Results* :—See Table 5 on page 15.

## II. REPORT OF THE STANDARDS COMMITTEE FOR LATUR.

LATUR.									
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	...	F. G. Broach No. 2 ..	F. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.
Class	..	..	Fully good	Fully good to fine	Fine	Fully good	Strict fine	Fine.	Good to fully good.
Colour	..	..	Dull creamy	Considerably bluish White and stains.	White	Grey	Greyish white	Whitish.	Greyish white.
Staple Length	..	..	Barely 7/8 inch	Full 7/8 inch	7/8 inch	7/8 inch	27/32 inch	7/8 inch.	13/16 inch.
Staple Strength	..	..	Good	Fair	Fair	Good	Good	Good.	Moderate.
Regularity	..	..	Irregular	Fairly regular	Irregular	Irregular	Regular	Irregular.	Irregular.
Value above or below contract rate.	Rs. 50 on F. G. Broach April/May.	Rs. 15 off	Rs. 30 on	Rs. 12 on	Rs. 20 on	Rs. 20 on	Rs. 55 on	Rs. 30 on	Rs. 5 off.
Basis	..	..	Rs. 222	Rs. 175	Settlement rate of F. G. M. G. Broach No. 2.	Fully Good M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.
Date of Valuation	..	..	5-3-31	9-5-32	25-3-33	8-3-34	26-3-35	2-3-36.	9-8-37.
Remarks	..	..	Slightly stained and black leaf.	..	..	..	..	..	..

Table 5.—SPINNING TEST RESULTS FOR LATUR COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27			
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Samples, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°F.).		RELATIVE HUMIDITY (%)	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 Spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	I.R.A.			BALISTIC.			Evenness Class.	Neps per yard.	Turns per Inch Actual.	Spiraling Room.	Testing Room.				
															Counts Actual.	Strength (lbs.)	Count-Work Product.	Counts Actual.	Work of Rupture (lb.-in.)	Count-Work Product.									
668	Latur	1929-30	9-2-30	20A	10	12.2	8.3	0.3	19.7	35	104	..	5.21	17.08	19.7	89.5	1704	10.9	129.4	2373	4	5.2	17.1	81	55	56			
668	Latur	1929-30	7-2-30	20B		..	..	..	..	10	103	..	5.32	20.23	19.8	84.6	1673	20.0	133.8	2670	4	4.2	19.2	82	90	50			
1002	Latur	1930-31	11-3-31	20	10	13.1	9.5	0.5	21.8	0	105	9450	0.58	17.09	20.2	89.4	1102	20.0	122.2	2444	3½	3.5	17.1	82	69	69			
1002	Latur	1930-31	14-3-31	24A		..	..	..	..	20	175	9175	0.70	19.73	23.8	53.8	1220	21.9	97.0	2130	4½	4.0	18.7	81	07	00			
1002	Latur	1930-31	16-3-31	24B		..	..	..	..	30	185	10300	0.89	20.74	21.4	55.0	1342	24.9	97.2	2420	4½	3.7	19.7	80	64	08			
1339	Latur	1931-32	18-5-32	20	10	11.0	10.1	0.0	21.2	47	104	9330	0.31	17.08	20.1	65.2	1311	20.2	121.0	2444	4	1.5	17.4	90	71	60			
1330	Latur	1931-32	18-5-32	24A		..	..	..	..	40	169	9300	0.91	10.73	23.7	51.4	1218	23.9	99.1	2370	4	2.0	10.0	92	99	07			
1330	Latur	1931-32	19-5-32	24B		..	..	..	..	26	174	9600	7.08	20.74	23.6	55.8	1317	24.0	101.2	2520	5	2.0	20.0	83	65	60			
1726	Latur	1932-33	3-4-33	20	10	10.0	10.5	0.0	20.5	90	160	9200	5.07	17.98	19.8	72.0	1426	20.0	125.4	2508	4	1.5	17.4	88	65	69			
1726	Latur	1932-33	5-4-33	24A		..	..	..	..	86	171	9200	6.59	10.73	23.9	49.2	1170	21.1	102.4	2408	4	1.8	19.1	87	61	70			
1726	Latur	1932-33	5-4-33	24B		..	..	..	..	100	184	10600	6.59	20.74	24.0	55.5	1332	23.7	103.2	2446	4	1.2	20.1	87	65	69			
2104	Latur	1933-34	20-3-34	20	10	14.4	12.3	0.9	25.4	73	103	9150	6.22	17.08	20.3	72.2	1160	20.3	124.4	2525	3	2.2	17.2	85	69	72			
2104	Latur	1933-34	22-3-34	24		..	..	..	..	95	179	9150	5.80	19.73	23.9	60.5	1410	23.6	106.0	2516	4	2.8	18.8	84	71	71			
2104	Latur	1933-34	22-3-34	30		..	..	..	..	63	140	9000	7.35	23.11	29.6	44.2	1393	29.7	82.4	2447	0	2.2	22.1	80	70	71			
2713	Latur	1934-35	8-4-35	20	10	10.8	11.0	0.2	20.8	0	198	9600	5.95	17.98	20.3	70.8	1020	20.0	130.0	2978	3	1.0	17.1	83	90	04			
2713	Latur	1934-35	9-4-35	24		..	..	..	..	32	176	9600	5.89	19.73	21.1	62.0	1509	24.0	109.0	2991	4	2.0	19.0	83	65	08			
2713	Latur	1934-35	9-4-35	30		..	..	..	..	17	138	8750	7.93	23.26	30.1	49.3	1181	30.7	90.0	2703	5	1.8	22.7	83	70	07			
3112	Latur	1935-36	10-3-36	20	10	11.0	9.2	0.1	10.9	26	190	9350	5.89	17.08	20.3	63.3	1285	20.3	118.8	2112	4	1.8	17.3	78	61	03			
3112	Latur	1935-36	10-3-36	24		..	..	..	..	14	171	9350	6.38	19.73	23.9	47.2	1129	21.4	96.4	2352	5	1.5	18.9	80	93	03			
8765	Latur	1936-37	18-8-37	20	10	10.3	20.1	0.4	33.4	36	200	9600	0.07	17.08	20.3	61.6	1250	20.1	121.0	2530	4	3.8	17.0	80	74	75			
3756	Latur	1936-37	18-8-37	24		..	..	..	..	82	183	9750	5.03	19.73	24.5	52.2	1034	25.0	98.0	2405	5	4.5	18.9	87	71	72			

Diameter of ring frame front roller—4 inch. Diameter of ring—15 inch.

\* Diameter of ring frame front roller—1/2 inch. Diameter of rings—1 1/4 inch.

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 6.—MUTTIA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
666	Muttia (F.G.)	Bhavnagar	1929-30	2103	Muttia	Bhavnagar	1933-34
667	" (Fine)	"	1929-30	2714	"	"	1934-35
1000	"	"	1930-31	3113	"	Amreli	1935-36
1337	"	Botad	1931-32	3546	"	Veraval	1936-37
1885	"	Gondal	1932-33				

### I.—SPINNING TESTS.

#### 1. Treatment :—

- (a) *Blow-room*.—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).  
1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Cord-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.  
1934-35 onwards:—Same as above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :—

MUTTIA.									
	1929-30 (Fully good.)	1929-30 (Fine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
...	Creamy	Creamy; less dull than F. G.	Dull creamy-white.	Creamy-white.	Dullish creamy-white.	White to creamy-white.	Creamy-white; dullish.	White to creamy-white.	White to creamy-white.
...	Very leafy	A trifle stained; very leafy.	Stained; very leafy.	Somewhat stained; very leafy—sand-like leaf.	Leafy	Stained; very leafy.	Stained; very leafy.	Stained; very leafy.	Very leafy.
...	Dull	..	Poor	..	Softish	Rough	Roughish	Somewhat softish.	Fairly good.
...	Ginning cut the seeds badly.	Ginning has knotted a good deal and cut the seeds very badly indeed.	..	..	..	..	Somewhat knotted.	Fairly well-ginned.	..
...	2.2% ginned and unginned.	4.25% ginned and unginned	0.75% seeds.	1.4% ginned and unginned.	1.5% unginned	Contains many unginned seeds.	..	..	Contains so ginned and unginned and dust.
...	Clean	..	Fairly clean.	Clean	Clean	Almost clean	Almost clean	Almost clean.	Fairly clean.
...	Clean	Somewhat neppy.	Good	Good	Good	Fairly good	Fairly good	Good.	A trifle neppy
...	13.8 grams	17 grams.	12.5 grams.	15.5 grams	21.0 grams	10.0 grams	18.4 grams	13.8 grams.	18.3 grams.
...	Very wasty; a very poor sample indeed.	..	Very wasty.	Responded well to treatment	..	..	..	..	Abnormal wasty in the blow-room.

##### (b) Yarn :—

MUTTIA.									
	1929-30. (Fully good.)	1929-30 (Fine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
...	Clean	Clean	Clean	Clean	Clean	Clean	Almost clean	Clean.	Fairly clean.
...	Fairly even	Even	Even to fairly even.	Somewhat uneven.	Fairly even in the lower count.	Fairly even	Even	Even.	Fairly even.
...	Fairly nep-free.	Free of nep.	Fairly nep-free.	Practically free of nep.	Free of nep	Nep-free	Free of nep	Almost nep-free	Free of nep.
...	Only occasional slub.	Free of slub.	..	Fairly slubby.	A trifle slubby.	..	A trifle slubby.	..	..
...	..	A good round thread.	..	..	..	..	..	..	..

#### 3. Spinning Test Details and Results :—See Table 6 on page 18.

## II. REPORT OF THE STANDARDS COMMITTEE FOR MUTTIA.

## MUTTIA.

MUTTIA.									
	1929-30 (Fully good.)	1929-30 (Fine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	.. Fully good Muttia	.. Fully good Muttia	Fine Oomra No. 3	F. G. M. G. Branch No. 2.	Fine M. G. Oomra Hedgo Contract No. 3 Dec./Jan. 1934 delivery.	Fine M. G. Oomra Hedgo Contract No. 3 March 1934 delivery.	Fine M. G. Oomra Hedgo Contract No. 3 May 1935 delivery.	Fine M. G. Oomra Hedgo Contract No. 3 March 1936 delivery.	Fine M. G. Oomra H. G. No. 3 ..
Class ..	.. Fully good	.. Barely fine	.. Fully good to fine	.. Fully good to fine	.. Superfine	.. Fine to superfine	.. Fine to superfine	.. Strict Fine.	.. Fully good
Colour ..	.. Greyish	.. Dull	.. Dull	.. Brownish ; some what stained.	.. Whitish	.. Whitish	.. Brownish-white	.. Whitish dull.	.. Dull grey
Staple Length ..	.. $\frac{1}{2}$ inch	.. $\frac{1}{2}$ inch	.. $\frac{1}{2}$ inch	.. $\frac{1}{2}$ inch	.. $\frac{1}{2}$ inch	.. $\frac{1}{2}$ inch	.. $\frac{1}{2}$ inch	.. $\frac{1}{2}$ inch.	.. $\frac{1}{2}$ inch
Staple Strength ..	.. Good to strong	.. Fair	.. Fair	.. Weak	.. Fair	.. Good	.. Good	.. Fair.	.. Fair
Regularity ..	.. Rather irregular	.. Normal	.. Regular	.. Irregular	.. Regular	.. Regular	.. Fair	.. Regular.	.. Regular
Value above or below contract rate.	.. Par	.. Rs. 5 on ..	.. Rs. 5 off	.. Rs. 20 off	.. Rs. 10 off	.. Rs. 10 off	.. Rs. 10 off	.. Rs. 7 off.	.. Rs. 25 off
Basis ..	.. Rs. 15 off fine Oomra No. 3.	.. Rs. 15 off fine Oomra No. 3.	.. Rs. 188	.. Rs. 175	.. Fine M. G. Oomra No. 3 Dec./Jan. 1934 dely. Rs. 180.	.. Fine M. G. Oomra H. G. No. 3 March 1934 dely. Rs. 176.	.. Fine M. G. Oomra H. G. No. 3 May 1935 dely. Rs. 198.	.. Fine M. G. Oomra Hedgo Contract No. 3 March delivery Rs. 170.	.. Fine M. G. Oomra H. G. No. 3 March dely. Rs. 234
Date of valuation ..	.. 28-1-30	.. 28-1-30	.. 5-3-31	.. 9-5-32	.. 20-7-33	.. 8-3-34	.. 20-3-35	.. 2-3-36	.. 10-3-37
Remarks ..	.. Better than average Bhavnagar.	..	..	..	..	..	..	..	..

Table 6.—SPINNING TEST RESULTS FOR MUTTIA COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										ENTER- ING ROOM (° F.).	SPLICING ROOM. (° F.).	HEATING ROOM. (° F.).
						Flow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss, †	Yarn Breakages per 100 Spindles	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	L.R.A.			DIMENSIONS.			Evenness Class.	Steps per yard.	Turns per inch Actual.			
															Counts Actual.	Strength (lbs.).	Count-Strength Product.	Counts Actual.	Work (inch-lb.) or Count-Work Product.	Count-Work Product.						
666	Mutilla (Fully Good)	1929-30	5-2-30	10A	10	20.7	9.1	0.2	28.0	0	106	..	5.42	12.63	10.1	78.0	789	10.3	181.4	1808	5	2.2	12.1	82	86	86
666	"	1929-30	5-2-30	100		..	..	..	..	20	103	..	5.33	11.29	0.9	115.7	1145	10.0	203.2	2032	5	2.7	13.7	82	86	87
667	Mutilla (Fine)	1929-30	5-2-30	10A	10	20.6	9.5	0.3	29.4	10	191	..	5.42	12.63	0.8	66.7	948	0.7	207.2	2010	4	1.5	12.0	81	84	81
667	"	1929-30	5-2-30	100		..	..	..	..	40	196	..	5.03	14.20	10.0	120.1	1201	10.0	207.0	2070	4	2.2	13.6	81	82	84
1000	Mutilla	1930-31	12-3-31	10A	10	17.7	8.5	0.5	25.0	0	107	6800	5.31	12.63	0.8	112.2	1100	9.7	229.0	2227	3	2.2	12.0	80	87	70
1000	Mutilla	1930-31	12-3-31	14A		..	..	..	..	27	170	7500	5.42	14.08	13.0	54.3	735	13.8	135.2	1866	5	3.7	14.4	82	87	68
1000	Mutilla	1930-31	12-3-31	14B		..	..	..	..	53	190	8750	5.42	16.85	14.4	69.3	983	14.3	135.0	1930	5	3.5	16.3	82	80	85
1337	Mutilla	1931-32	14-5-32	10A	10	18.3	9.6	0.8	26.7	118	107	6800	5.35	12.63	10.0	65.0	650	10.3	195.0	1912	4	1.2	12.2	80	88	86
1337	Mutilla	1931-32	16-5-32	12B		..	..	..	..	80	100	7700	5.43	14.08	11.4	80.3	915	11.3	186.8	2110	1	1.2	14.0	80	87	86
1337	Mutilla	1931-32	16-5-32	14B		..	..	..	..	104	178	8300	6.67	16.85	14.0	59.0	925	11.4	144.4	2070	5	1.0	16.5	80	88	83
1685	Mutilla	1932-33	26-8-33	10A	10	13.3	12.2	0.5	24.2	127	183	8100	5.37	12.63	0.7	75.5	732	9.7	214.8	2084	4	0.5	12.0	86	74	70
1685	Mutilla	1932-33	26-8-33	10B		..	..	..	..	82	202	7350	5.50	13.58	10.0	88.0	880	10.0	211.6	2113	4	0.2	13.1	85	74	86
1685	Mutilla	1932-33	26-8-33	12B		..	..	..	..	270	187	7250	5.50	14.08	12.3	50.8	739	12.6	174.0	2192	5	0.5	14.0	86	72	80
2193	Mutilla	1933-34	20-3-34	10A	10	16.6	12.8	0.5	27.7	36	186	6400	5.57	12.63	10.1	71.7	724	10.1	202.0	2010	4	0.5	12.3	84	80	71
2193	Mutilla	1933-34	20-3-34	12A		..	..	..	..	87	177	6700	5.68	13.92	11.8	55.4	654	12.1	169.4	2039	4	0.8	13.7	84	80	69
2193	Mutilla	1933-34	20-3-34	12B		..	..	..	..	80	185	7500	5.81	14.08	12.0	66.1	793	12.2	174.0	2123	4	0.5	14.5	84	80	69
2714	Mutilla	1934-35	9-4-35	10A	10	15.8	10.4	0.2	24.7	18	183	8200	5.34	12.63	10.2	100.2	1114	10.3	231.6	2385	3	0.5	12.0	82	84	69
2714	Mutilla	1934-35	10-4-35	12A		..	..	..	..	0	180	6900	5.48	13.92	12.0	81.2	974	12.2	190.6	2135	4	0.8	13.4	83	70	68
2714	Mutilla	1934-35	10-4-35	12B		..	..	..	..	0	187	7500	5.34	11.63	11.0	103.1	1251	11.0	201.6	2390	1	0.5	14.2	83	70	74
3113	Mutilla	1935-36	12-3-36	10A	10	17.8	9.3	0.2	25.6	0	106	6200	5.21	12.63	10.2	87.7	805	10.3	209.2	2155	3	1.0	12.2	83	84	68
3113	Mutilla	1935-36	19-3-36	12A		..	..	..	..	22	180	6950	5.43	13.92	12.5	55.1	689	12.4	182.8	2267	4	1.2	13.4	87	86	64
3113	Mutilla	1935-36	19-3-36	12B		..	..	..	..	0	184	7150	5.43	14.08	12.5	66.1	890	12.1	200.8	2130	4	1.0	14.1	88	86	71
3546	Mutilla	1936-37	5-4-37	10A	10	21.7	11.9	0.3	31.2	13	201	7000	5.00	12.63	10.2	95.1	970	9.0	238.4	2360	4	1.0	12.1	86	85	67
3546	Mutilla	1936-37	6-4-37	12A		..	..	..	..	15	186	7200	5.43	13.92	12.2	72.7	887	11.8	194.4	2294	4	1.2	13.5	85	86	67
3546	Mutilla	1936-37	6-4-37	12B		..	..	..	..	22	191	7700	5.64	14.08	12.3	83.1	1047	11.9	196.8	2342	4	1.0	14.2	84	87	68

\* The ring frame front roller diameter— $\frac{3}{4}$ ". Diameter of rings— $1\frac{1}{2}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

### 7.—PUNJAB-AMERICAN COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
671	Punjab-American	Okara	1929-30
1046	"	"	1930-31
1352	"	Khanewal	1931-32
1882	"	Burewala	1932-33
2237	"	Khanewal	1933-34
2732	"	Chinchwatni	1934-35
3114	"	Phularwan	1935-36
3566	"	Khanpur	1936-37

#### I. SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—Same as above but spun from single hank roving on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

(a) *Cotton* :—

PUNJAB-AMERICAN.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36	1936-37
Colour ..	Creamy-white	Creamy-white	Creamy-white.	White to creamy-white.	White to creamy-white; bright.	White to creamy-white.	White to creamy-white, bright.	Creamy-white to white.
Cleanliness ..	Somewhat leafy; a good deal stained	Slightly stained, leafy.	Leafy; stained noticeably.	Somewhat leafy.	A little leafy.	Stained; fairly leafy.	A little leafy.	Fairly clean.
Feel ..	Good bodied; slightly harsh	Soft.	Softish.	Good.	Smooth good	Good.	Good smooth.	Good
Ginning and nep-piness	Fairly knotted	Only fairly well ginned	Fairly well ginned.	Well ginned.	Well-ginned but a trifle knotted.	Fairly well-ginned.	Well-ginned.	Well-ginned.
Seeds ..	..	1.75% unginned.	1.1% unginned.	..	..	..	..	..
Card Sliver	..	Fairly clean	A little leafy.	Almost clean.	Clean.	Clean.	Clean.	Almost clean.
Card Web ..	Good clear.	Slightly cloudy and neppy.	Somewhat neppy.	Good.	A little neppy.	Good.	Good.	Good; nep free
Weight of 10 flat strips.	..	19.8 grams.	21.6 grams.	25.5 grams.	21.5 grams.	24.5 grams.	13.7 grams.	17.4 grams.
Remarks ..	Responded to treatment.	..	..	..	..	..	..	..

(b) *Yarn* :—

PUNJAB-AMERICAN.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36	1936-37.
Cleanliness ..	Clean.	Clean but dull.	Fairly clean.	Clean.	Clean.	Almost clean.	Clean.	Slightly leafy.
Evenness ..	Fairly even.	Fairly even.	Somewhat uneven.	Fairly even.	Even in the two lower counts	Fairly even.	Even.	Fairly even.
Nepiness ..	Fairly neppy.	A trifle neppy	A little neppy.	Practically free of nep	Free of nep.	A little neppy.	Almost nep free	Almost free of nep.
Slabbiness ..	A trifle slubby.	Slabby.	Slabby.	A trifle slubby.	..	Somewhat slubby.	..	..

3. *Spinning Test Details and Results* :—See Table 7 on page 21.

## II. REPORT OF THE STANDARDS COMMITTEE FOR PUNJAB-AMERICAN.

PUNJAB-AMERICAN.									
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under ..	Fully Good Broach No. 2.	Fully Good M. Broach No. 2.	G. F.G.M.G. Broach No. 2.	F.G.M.G. Broach No. 2, July/Aug. 1933 delivery.	F.G.M.G. Broach No. 2, Apr./May 1934.	F.G.M.G. Broach No. 2, Apr./May 1935 delivery.	F.G.M.G. Broach No. 2, Apr./May 1936 delivery.	F.G.M.G. Broach No. 2, Apr./May 1937 delivery, Rs. 250.	
Class ..	About Superfine.	Fine.	About fully Good.	Fine.	Fine to Superfine.	Superfine.	Superfine.	Superfine.	
Colour ..	Greyish.	Bluish-white.	Dull white	Creamy-white.	Greyish white.	White.	Creamy-white.	White, very slightly creamy.	
Staple Length ..	13/16 inch.	13/16 inch.	3/4 inch.	3/4 inch.	Barely 3/4 inch.	9/16 to 3/4 inch.	13/16 inch.	Full 3/4 inch.	
Staple Strength ..	Varied.	Weakish.	Good.	Fair.	Good.	Poor.	Good.	Good.	
Regularity ..	Very irregular.	Irregular.	Somewhat irregular.	Irregular.	Irregular.	Very irregular.	Regular.	Regular.	
Value above or below contract rate	Par.	Rs. 10 on.	Rs. 10 on.	Rs. 10 on.	Rs. 15 on.	Rs. 10 on.	Rs. 25 on.	Rs. 15 on.	
Basis ..	Par, fully good Broach No. 2.	Rs. 182.	Rs. 164.	F.G.M.G. Broach No. 2, July/Aug. 1933 delivery, Rs. 207.	F.G.M.G. Broach No. 2, Apr./May 1934 delivery, Rs. 197.	F.G.M.G. Broach No. 2, Apr./May 1935 delivery, Rs. 237.	F.G.M.G. Broach No. 2, Apr./May 1936 delivery, Rs. 189.	F.G.M.G. Broach No. 2, Apr./May 1937 delivery, Rs. 250.	
Date of Valuation ..	28-1-30.	5-5-31.	30-5-32.	26-7-33.	9-4-34.	15-4-35.	2-3-36.	5-4-37.	
Remarks ..	Heavily mixed with <i>dest.</i>	..	..	..	..	..	..	..	



Table 7.—SPINNING TEST RESULTS FOR PUNJAB-AMERICAN COTTON.

Sample No.	Cotton.	Season	Date of Spinning	Counts Nominal.	Weight of Sample lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS						TEMPERATURE AND HUMIDITY (%)						
						Blow Room Loss	Card Room Loss	Spinning Loss.	Total Loss †	Yarn Breakages per 100 spindles per hour.	Front R.O.L.I. Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	Counts Actual	Strength (lbs)	LEA		Counts Actual.	Work of Rupture (inch lb)	Count-Work Product.	Evenness Class	Keps per yard.	Turns per inch Actual	Spinning Room	Testing Room.
																	Count Strength	Count-Work Product.								
071	Punjab/American	1929-30	10-2-30	20A	0	10.4	0.3	0.8	19.4	145	180	.	5.10	17.98	19.8	40.0	013	20.2	03.2	1883	4	4.2	17.2	80	82	85
"	"	"	"	20B		.	"	"	"	130	191	"	5.10	20.23	19.8	60.7	1202	20.3	100.2	2034	5	3.5	10.2	81	03	05
1010	Punjab/American	1930-31	9-5-31	10	10	11.7	11.1	0.6	21.9	60	104	9000	5.32	16.97	15.7	60.5	1044	16.2	139.0	2252	3	1.5	15.6	90	07	80
"	"	"	11-5-31	20A		"	"	"	"	110	170	8700	6.03	17.98	20.0	40.0	800	20.3	103.8	2107	4	2.2	17.3	90	65	68
"	"	"	"	20B		.	"	"	"	70	188	10700	6.03	20.23	10.0	54.1	1077	20.2	105.8	2133	5	2.5	10.5	89	66	67
1352	Punjab/American	1931-32	6-6-32	10	10	11.7	11.5	0.0	22.3	16	102	8350	5.10	15.97	15.8	82.8	1368	15.7	182.0	2857	4	2.2	15.5	01	05	68
"	"	"	7-6-32	20A		"	"	"	"	105	189	9200	6.38	17.98	20.2	51.9	1048	20.4	112.4	2293	5	2.0	17.4	90	66	70
1682	Punjab/American	1932-33	18-8-33	16	10	8.8	13.5	0.5	21.5	218	180	8000	5.11	15.97	15.8	63.1	097	15.5	170.0	2035	4	1.2	15.4	86	73	70
"	"	"	19-8-33	20A		"	"	"	"	228	170	8300	5.68	17.98	20.1	37.8	760	19.8	112.0	2218	5	1.6	17.0	87	68	70
2237	Punjab/American	1933-34	19-4-34	16	10	7.5	10.7	0.6	17.0	24	198	8700	5.32	15.07	10.1	85.7	1371	15.8	188.2	2974	4	0.8	15.3	87	06	68
"	"	"	18-4-34	20A		"	"	"	"	57	188	9200	5.10	17.98	10.3	70.1	1353	10.5	140.4	2738	4	0.8	17.4	87	05	68
"	"	"	"	24		"	"	"	"	89	170	9500	6.25	20.74	24.3	51.4	1249	24.0	99.6	2450	0	1.0	19.8	87	67	68
2732	Punjab/American	1934-35	12-8-35	12	10	7.8	11.8	0.5	19.1	73	174	9500	4.32	13.92	12.4	60.8	704	12.2	104.0	2367	4	1.0	13.1	90	69	70
"	"	"	5-6-35	10A		"	"	"	"	55	160	7100	5.54	15.97	15.6	29.0	607	15.7	122.8	1928	4	1.2	15.1	90	66	07
"	"	"	4-6-35	10B		"	"	"	"	48	170	8700	5.70	17.08	10.8	45.8	780	16.5	127.0	2105	4	1.0	10.9	00	07	00
3114	Punjab/American	1935-36	12-3-36	10	10	8.0	10.0	0.3	18.0	0	197	8650	5.55	15.07	10.1	102.1	1644	16.0	204.0	3204	3	1.0	15.5	81	02	00
"	"	"	"	20		"	"	"	"	10	160	9350	5.31	17.98	20.0	76.3	1525	10.0	141.0	2818	3	1.0	17.5	80	60	02
"	"	"	"	24		"	"	"	"	27	171	9500	6.34	10.73	24.1	58.2	1403	23.0	115.0	2728	4	1.2	19.0	82	02	72
3506	Punjab/American	1936-37	15-4-37	10	10	8.5	10.2	0.4	18.1	18	103	8950	5.57	15.07	16.4	60.7	1487	16.1	207.0	3342	3	1.2	15.1	00	68	68
"	"	"	14-4-37	20		"	"	"	"	38	192	9500	5.00	17.98	20.4	70.0	1440	20.2	148.4	3006	3	1.0	17.1	80	07	70
"	"	"	15-4-37	24		"	"	"	"	18	180	9500	5.93	19.73	23.9	53.2	1271	23.5	120.0	2740	4	1.2	10.0	60	07	68

\* Diameter of ring frame front roller—1". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here. The performance of the 1934-35 sample is much below the average for this cotton.

### 8.—BROACH COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
729	Broach	Broach	1929-30.
1023	"	"	1930-31.
1351	"	Miyagam	1931-32.
1782	"	Dabhoi	1932-33.
2235	"	Palej	1933-34.
2731	"	Broach	1934-35.
3283	"	Palej	1935-36.
3542	"	Amod	1936-37.
3543	"	Palej	1936-37.

#### I. SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust-trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

##### (a) Cotton :—

		BROACH.								
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
									Amod.	Palej.
Colour	.. ..	White to creamy-white.	White to creamy-white.	White to creamy-white; brightish.	Creamy-white; bright.	White to creamy-white; bright.	White to brightish.	White to creamy-white.	White.	White to creamy-white; bright.
Cleanliness	.. ..	Clean; fairly bright.	Fairly clean; an occasional stain; very bright.	Fairly clean.	Clean.	Clean.	Fairly clean.	Fairly clean.	Fairly clean; a trifle stained.	Clean.
Feel	.. ..	Good.	Good-bodied.	Good-bodied.	Good.	Smooth and bodied.	Good.	Softish.	Good bodied.	Softish.
Ginning and Neppiness	.. ..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	.. ..	1.75% unginned.	..	1% unginned.	2.2% unginned.	..	..	..	..	..
Card sliver	.. ..	Clean.	Clean.	Almost clean.	Clean.	Clean.	Almost clean.	Clean.	A little leafy.	Clean.
Card web	.. ..	Clear.	Very good.	Good.	Even and nep-free.	Good.	Good.	Good.	Almost nep-free.	Good
Weight of ten flatstrips	.. ..	15.6 grams.	13.7 grams.	16.2 grams.	15.4 grams.	16.9 grams.	21.9 grams.	18.8 grams.	13.4 grams.	14.0 grams.
Remarks	.. ..	..	..	..	..	..	..	..	..	..

##### (b) Yarn :—

		BROACH.								
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
									Amod.	Palej.
Cleanliness	.. ..	Clean.	Clean.	Clean.	Clean.	Fairly clean.	Almost clean.	A little leafy.	Fairly clean.	Slightly leafy.
Evenness	.. ..	Fairly even.	Fairly even.	Even	.. Even.	Fairly even.	Even.	Fairly even.	Even.	Fairly even.
Neppiness	.. ..	Fairly free of nep.	Somewhat neppy.	A trifle neppy.	Free of nep.	Almost free of nep.	A little neppy.	Almost free of nep.	Almost free of nep.	Fairly free of nep.
Slubbiness	.. ..	..	A trifle slubby	..	..	..	A little slabby.	Slightly slubby.	..	..

3. *Spinning Test Details and Results*.—See Table 8 on page 24.

## II. REPORT OF THE STANDARDS COMMITTEE FOR BROACH COTTON.

BROACH.										
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
									Amod.	Palej.
Contract valued under	..	F. G. M. G. Broach.	F. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2 April/May 1933.	F. G. M. G. Broach Hedge Contract No. 2 April/May 1934.	F. G. M. G. Broach Hedge Contract No. 2 April/May 1935 delivery.	F. G. M. G. Broach Hedge Contract No. 2 July/August 1936 delivery.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.
Class	..	Superfine.	Fine to Superfine.	Strict fine.	Fine to Superfine.	Superfine to Extra Superfine.	Fine.	Fine.	Fine.	Superfine.
Colour	..	Creamy.	White.	White.	White but slightly creamy.	White.	White.	Creamy-white.	White.	White.
Staple Length	..	13/16 inch.	3/4 inch.	5/8 inch.	3/4 inch.	3/4 inch.	11/16 inch to 3/4 inch	5/8 inch.	3/4 inch.	11/16 inch.
Staple Strength	..	Fair.	Fairly good.	Good.	Good.	Fair.	Fair.	Fair.	Moderate.	Moderate.
Regularity	..	Fair.	Regular.	Regular.	Regular.	Regular.	Fair.	Regular.	Regular.	Regular.
Value above or below contract rate.	..	Rs. 10 on.	Rs. 8 on.	Rs. 2 on.	Rs. 8 on	Rs. 12 on	Rs. 7 on.	Rs. 3 on.	Rs. 3 on.	Rs. 3 on.
Basis	..	Rs. 252.	Rs. 201.	Rs. 104.	F. G. M. G. Broach No. 2 April/May 1933 delivery Rs. 202.	F. G. M. G. Broach Hedge Contract No. 2 April/May 1934 delivery Rs. 197.	F. G. M. G. Broach Hedge Contract No. 2 April/May 1935 delivery Rs. 237.	F. G. M. G. Broach Hedge Contract No. 2 July/August 1936 delivery Rs. 223.	F. G. M. G. Broach H. C. No. 2 April/May delivery Rs. 246.	F. G. M. G. Broach No. 2 April/May delivery Rs. 246.
Date of Valuation	..	29-4-30.	1-4-31.	30-5-32.	24-5-33.	9-4-34.	15-4-35.	24-6-36.	16-3-37.	16-3-37.
Remarks	..	..	..	..	..	..	..	..	..	..



### 9.—JAGADIA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after selection and approval by their Standards Committee, in accordance with an arrangement made by the Association to supply to the Technological Laboratory, for testing, samples of fair average of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
730	Jagadia.	Jagadia.	1929-30.	2296	Jagadia.	Jagadia.	1933-34.
1047	"	"	1930-31.	2733	"	"	1934-35.
1355	"	"	1931-32.	3262	"	"	1935-36.
1786	"	"	1932-33.	3544	"	"	1936-37.

#### I. SPINNING TESTS.

##### Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### Spinning Master's Report :—

##### (a) Cotton :—

JAGADIA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. ..	White to creamy-white; bright.	White to creamy-white; bright.	White; bright.	White; brightish.	White to creamy-white; bright.	White to brightish.	White to creamy-white; brightish.	White to creamy-white.
.. ..	Fairly clean.	Fairly clean.	Somewhat leafy.	Fairly clean.	Fairly clean.	A little stained; fairly clean.	Fairly leafy.	Contains leaf.
.. ..	Bodied and silky.	Good silky.	Good soft.	Good softish.	Good soft.	Good.	Good smooth.	Soft.
neppiness.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
.. ..	Occasional cut seed.	..	1.5% unginned.	..	..	..	..	..
.. ..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.
.. ..	Clear and even.	Good.	Good.	Even and nep-free.	Full and free of nep.	Web good.	Even; nep-free.	Slightly nepp.
n flat strips.	12.2 grams.	10.5 grams.	13.2 grams.	14.9 grams.	15.9 grams.	16.3 grams.	16.5 grams.	14.8 grams.
.. ..	A very good commercial sample.	..	..	..	..	..	..	..

##### (b) Yarn :—

JAGADIA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. ..	Clean.	Clean.	Clean.	Clean.	Clean.	Fairly clean.	A little leafy.	Almost clean.
.. ..	Fairly even.	Even.	Even.	Fairly even.	Even.	Even.	Even.	Fairly even.
.. ..	Fairly free of nep.	Fairly free of nep.	Almost free of nep.	Almost nep-free.	Almost free of nep.	Fairly free of nep.	Practically free of nep.	Fairly nepp.
.. ..	..	..	..	..	..	..	..	..

3. *Spinning Test Details and Results* :—See Table 9 on page 27.

## II. REPORT OF THE STANDARDS COMMITTEE FOR JAGADIA COTTON.

[illegible]

Table 9.—SPINNING TEST RESULTS FOR JAGADIA COTTON.

Sample No.	Cotton.	Se. mon.	Date of spinning	WASTE PERCENTAGES.						RING FRAME PARTICULARS *						YARN TEST RESULTS.						RELATIVE HUMIDITY (%).	
				Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft	Turns per inch.	LFA			BALISTICO.			Turns per inch Actual.	Spinning Room.	Testing Room.	RELATIVE HUMIDITY (%).	RELATIVE HUMIDITY (%).
													Counts Actual	Strength (lbs)	Count strength product	Counts Actual	Work of Ring (inch lbs)	Count Work.					
730	Jagadia	1029-30	12-5-30	8.3	7.8	0.7	16.1	8	173	..	7.35	10.73	21.0	61.4	1174	23.0	88.4	2113	2.7	10.0	00	06	27
730	Jagadia	1029-30	12-5-30	..	..	..	..	03	158	..	0.04	21.80	30.5	38.0	1150	30.5	55.2	1684	2.2	21.1	01	02	26
1017	Jagadia	1030-31	11-5-31	8.3	8.0	0.5	16.0	31	108	0800	6.11	17.08	10.0	77.4	1510	20.5	113.2	2321	1.7	17.4	00	03	07
1017	Jagadia	1030-31	12-5-31	..	..	..	..	0	178	0800	0.50	10.73	24.1	61.0	1170	21.4	07.2	2372	1.5	10.1	00	05	07
1017	Jagadia	1030-31	12-5-31	..	..	..	..	23	150	0800	7.88	23.11	29.8	45.4	1373	30.3	79.4	2100	2.0	22.2	80	00	00
1335	Jagadia	1031-32	0-6-32	8.0	7.5	0.6	15.3	50	104	0500	6.93	17.08	20.0	70.0	1502	20.2	120.4	2553	1.2	17.1	01	07	00
1335	Jagadia	1031-32	0-6-32	..	..	..	..	21	177	0520	7.11	10.73	24.1	59.3	1429	21.1	101.6	2140	1.2	10.0	02	00	00
1335	Jagadia	1031-32	8-6-32	..	..	..	..	40	100	0000	7.00	21.80	20.2	47.1	1375	20.8	81.6	2521	1.8	21.1	01	00	08
1786	Jagadia	1032-33	1-6-33	8.0	8.8	0.5	16.3	41	180	0570	5.54	10.73	23.0	63.2	1510	21.7	108.8	2570	1.2	19.1	80	03	70
1780	Jagadia	1032-33	1-6-33	..	..	..	..	122	178	0100	0.71	21.80	29.8	16.4	1387	30.3	82.1	2407	2.0	21.3	91	08	70
2200	Jagadia	1033-34	22-5-34	0.0	8.5	0.3	11.8	16	198	0750	5.87	17.08	20.2	88.8	1701	20.6	128.8	2053	1.8	17.3	00	08	00
2200	Jagadia	1033-34	22-5-34	..	..	..	..	0	180	0300	5.45	10.73	23.0	72.0	1735	21.2	111.8	2703	1.8	10.1	00	08	08
2200	Jagadia	1033-34	23-5-34	..	..	..	..	20	150	0300	0.71	21.80	20.5	53.0	1581	29.0	88.1	2013	1.7	21.2	88	08	70
2733	Jagadia	1034-35	5-6-35	7.5	8.3	0.4	15.6	10	192	0200	5.95	17.08	20.5	75.5	1518	20.5	129.0	2795	1.8	17.1	88	00	00
2733	Jagadia	1034-35	6-6-35	..	..	..	..	36	170	0500	5.33	10.73	21.0	64.0	1530	21.3	108.2	2020	1.5	10.0	00	07	00
2733	Jagadia	1034-35	6-6-35	..	..	..	..	17	142	8300	0.67	21.80	29.1	18.0	1123	20.7	80.4	2055	2.0	21.3	80	08	08
3202	Jagadia	1035-36	3-7-36	7.5	8.8	0.3	15.0	5	100	0350	5.95	17.08	20.1	88.1	1771	20.2	128.0	2708	1.0	17.2	80	77	08
3202	Jagadia	1035-36	3-7-36	..	..	..	..	20	171	0000	5.55	10.73	23.4	70.0	1673	23.0	100.1	2543	1.7	18.8	87	70	08
3202	Jagadia	1035-36	4-7-36	..	..	..	..	20	152	0350	0.91	21.80	20.7	69.7	1170	30.2	83.0	2507	1.0	20.8	87	73	70
3344	Jagadia	1036-37	25-3-37	7.2	8.3	0.1	15.2	5	185	0400	0.22	17.08	20.1	85.8	1725	20.3	133.2	2704	2.5	17.3	80	70	07
3344	Jagadia	1036-37	30-3-37	..	..	..	..	18	100	0450	5.20	10.73	23.1	73.0	1086	21.1	110.0	2031	3.2	10.1	80	67	07
3344	Jagadia	1036-37	31-3-37	..	..	..	..	3	153	0100	0.83	21.80	20.0	51.0	1527	28.0	80.0	2703	3.5	21.1	81	07	07

\* Diameter of ring frame front roller—7/8". Diameter of rings—1 5/8".

† It is to be noted that the total loss for a small sample weighing 10 lbs or thereabout for a bulk sample spun under mill conditions it would be less than shown here

## 10.—SURAT COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after on and approval by their Standards Committee, in accordance with an arrangement made by the Association to supply to the Technological Laboratory, for testing, samples of fair average of the commercial crop.

Sample No.	Cotton.	Place.	Season.
731	Surat.	Surat.	1929-30.
1022	Surat.	Surat.	1930-31.
1353	Surat.	Kosamba.	1931-32.
1783	Surat.	Surat.	1932-33.
2236	Surat.	Surat.	1933-34.
2837	Surat.	Surat.	1934-35.
3163	Surat.	Surat.	1935-36.
3545	Surat.	Ankleshwar.	1936-37.

## I.—SPINNING TESTS.

Treatment :—

(a) *Blow-room.*—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

SURAT.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. ..	White; bright.	White to creamy-white.	White; brightish.	Creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; bright.	White; bright.	White; bright.
.. ..	Fairly clean; a trifle stained.	Fairly clean; very bright.	Somewhat leafy.	Fairly clean.	Clean.	Fairly leafy.	Clean.	Contains a little leaf a trifle stained.
.. ..	Good silky.	Very soft.	Soft silky.	Good smooth.	Good soft.	Good.	Smooth and bodied.	Soft.
pininess ..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.	Well-ginned.
.. ..	..	..	..	..	1% unginned.	Good amount of unginned seeds.	..	..
.. ..	Clean.	Clean.	Almost clean.	Almost clean.	Clean.	A little leafy.	Clean.	Almost clean.
.. ..	Even and clear.	Very good.	Fairly good.	Even and nep-free.	Good.	Full.	Even and nep-free.	A little neppy.
strips ..	13.7 grams.	11.0 grams.	14.3 grams.	15.1 grams.	14.7 grams.	18.1 grams.	12.3 grams.	13.4 grams.
.. ..	A very desirable cotton.	..	..	..	..	..	..	..

(b) *Yarn* :—

SURAT.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. ..	Clean.	Fairly clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.	Almost clean.
.. ..	Fairly even.	Even.	Even.	Fairly even.	Fairly even.	Even.	Even.	Even.
.. ..	A little neppy.	Practically free of nep.	Almost free of nep.	Free of nep.	Fairly free of nep.	A little neppy.	Free of nep.	Slightly neppy.
.. ..	..	..	..	..	..	Occasionally slubby.	..	..

Spinning Test Details and Results :—See Table 10 on page 30.



# II.—REPORT OF THE STANDARDS COMMITTEE FOR SURAT COTTON.

29

SURAT.										
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.		
Contract valued under	F. G. M. G. Brouch.	F. G. Brouch No. 2.	F. G. M. G. Brouch No. 2.	F. G. M. G. Brouch No. 2, April/May 1933.	F. G. M. G. Brouch No. 2, April/May 1934.	F. G. M. G. Brouch No. 2, July/August 1935 delivery.	F. G. M. G. Brouch No. 2, April/May 1936 delivery.	F. G. M. G. Brouch No. 2.		
Class	..	..	..	..	..	..	..	..		
Colour	..	..	..	..	..	..	..	..		
Staple Length	..	..	..	..	..	..	..	..		
Staple Strength	..	..	..	..	..	..	..	..		
Regularity	..	..	..	..	..	..	..	..		
Value above or below contract rate..	..	..	..	..	..	..	..	..		
Basis	..	..	..	..	..	..	..	..		
Date of Valuation	..	..	..	..	..	..	..	..		
Remarks	..	..	..	..	..	..	..	..		
	F. G. M. G. Brouch. Fine to Superfine. Creamy. 11/16". Good. Fair. Rs. 105 on.	F. G. Brouch No. 2. Barely Superfine. White. Full 15/16". Fairly good. Regular. Rs. 75 on.	F. G. M. G. Brouch No. 2. Fine. White. 7/8". Fair. Fair. Rs. 50 on.	F. G. M. G. Brouch No. 2, April/May 1933. Fine. White but slightly creamy. 15/16". Fair. Irregular. Rs. 40 on.	F. G. M. G. Brouch No. 2, April/May 1934. Fine to Superfine. White. 7/8". Good. Regular. Rs. 70 on.	F. G. M. G. Brouch No. 2, July/August 1935 delivery. Fine. Whitish. 7/8". Fair. Fair. Rs. 60 on.	F. G. M. G. Brouch No. 2, April/May 1936 delivery. Fine to Superfine. White. 15/16". Good. Slightly irregular. Rs. 50 on.	F. G. M. G. Brouch No. 2. Fine to Superfine. White. 7/8". Good. Regular. Rs. 55 on.		
	Rs. 252.	Rs. 201.	Rs. 104.	F. G. M. G. Brouch No. 2, April/May 1933 delivery Rs. 202.	F. G. M. G. Brouch No. 2, April/May 1934 delivery Rs. 197.	F. G. M. G. Brouch No. 2, July/August 1935 delivery Rs. 224.	F. G. M. G. Brouch No. 2, April/May 1936 delivery Rs. 203.	F. G. M. G. Brouch No. 2. Hedge Contract No. 2, April/May delivery Rs. 246.		
	29-4-30.	1-4-31.	30-5-32.	24-5-33.	9-4-34.	20-8-35.	23-4-36.	16-3-37.		
	..	..	..	..	..	..	..	..		

Table 10—SPINNING TEST RESULTS FOR SURAT COTTON.

Table 10—SPINNING																																																																																									
1	2	3	4	5	6	7				8				9				10				11				12				13				14				15				16				17				18				19				20				21				22				23				24				25				26				27			
						WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.				LEA.				BALANCE.				YARN TEST RESULTS.				TEMPERATURE (°F.).				RELATIVE HUMIDITY %																																																							
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles	Front Roller speed R.P.M.	Spindle speed R.P.M.	Draft.	Turns per inch.	Counts Actual.	Strength lbs.	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.	Evenness Class.	Meps per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.																																																																
Sample No.	Cotton.	Season.	Date of Spinning	Counts Nominal.	Weight of Sample, lbs.	Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles	Front Roller speed R.P.M.	Spindle speed R.P.M.	Draft.	Turns per inch.	Counts Actual.	Strength lbs.	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.	Evenness Class.	Meps per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.																																																																
731	Surat	1929-30	13-5-30	24	16	7.0	7.7	0.5	14.4	13	172	..	8.00	19.73	23.8	50.3	1340	24.3	82.2	1007	4	2.5	18.6	91	60	61																																																															
731	Surat	1929-30	14-5-30	36	..	..	..	..	..	30	155	..	9.29	24.53	30.2	43.2	1305	31.1	59.4	1347	6	3.0	23.6	80	60	60																																																															
1022	Surat	1930-31	14-4-31	24	10	7.0	7.5	0.5	14.5	0	180	9700	6.19	10.73	23.8	62.4	1485	23.0	101.8	2402	8	1.2	18.8	00	68	65																																																															
1022	Surat	1930-31	14-4-31	30	..	..	..	..	..	20	160	10600	8.03	24.53	30.4	43.4	1319	31.0	79.6	2469	4	1.7	23.5	01	68	07																																																															
1853	Surat	1931-32	7-6-32	20	10	8.0	8.2	0.6	15.8	0	105	9650	5.05	17.98	20.2	73.2	1470	20.1	118.8	2348	3	1.2	17.3	00	07	68																																																															
1353	Surat	1931-32	7-6-32	24	..	..	..	..	..	32	178	9550	7.00	19.73	24.1	57.6	1388	23.7	94.2	2233	4	1.8	10.1	91	65	67																																																															
1353	Surat	1931-32	8-6-32	30	..	..	..	..	..	53	159	9500	6.94	21.86	20.6	42.2	1249	20.3	78.0	2286	4	2.0	21.2	91	87	66																																																															
1783	Surat	1932-33	30-5-33	20	10	7.2	8.2	6.5	15.2	114	195	9700	5.08	17.08	20.1	71.2	1431	20.1	125.2	2517	4	1.0	17.2	90	60	66																																																															
1783	Surat	1932-33	30-5-33	24	..	..	..	..	..	118	178	9650	6.22	19.73	24.0	54.8	1315	23.9	102.2	2443	5	1.2	16.8	91	88	66																																																															
2230	Surat	1933-34	17-4-34	20	10	6.6	7.3	0.5	14.3	5	190	9650	5.03	17.06	20.5	89.7	1830	20.7	130.6	2706	3	1.5	17.3	88	60	66																																																															
2236	Surat	1933-34	17-4-34	24	..	..	..	..	..	27	182	9800	5.43	19.73	24.4	72.8	1776	25.1	106.6	2681	4	1.2	10.1	80	69	66																																																															
2236	Surat	1933-34	18-4-34	30	..	..	..	..	..	30	160	9500	6.79	21.86	30.8	50.1	1543	31.6	86.2	2724	5	1.5	21.1	88	70	66																																																															
2236	Surat	1933-34	19-4-34	40	..	..	..	..	..	36	140	9500	9.00	25.26	40.8	32.4	1322	40.4	66.0	2666	6	1.8	24.4	87	08	68																																																															
2637	Surat	1934-35	29-8-35	20	10	8.1	9.5	0.3	17.1	5	105	9500	5.83	17.98	20.2	100.0	2020	20.1	143.6	2886	3	2.2	17.1	84	80	80																																																															
2637	Surat	1934-35	30-8-35	30	..	..	..	..	..	7	180	9550	6.47	21.86	29.9	58.6	1694	29.1	91.8	2671	4	2.0	20.0	84	78	78																																																															
2637	Surat	1934-35	30-8-35	40	..	..	..	..	..	29	140	9600	8.83	25.28	40.7	32.7	1331	40.5	65.6	2657	5	1.8	24.1	85	79	80																																																															
3163	Surat	1935-36	4-5-36	20	10	3.4	7.0	0.3	10.4	0	104	9700	5.35	17.98	20.4	76.7	1565	20.6	119.0	2451	3	0.5	17.5	80	07	70																																																															
3168	Surat	1935-36	2-5-36	24	..	..	..	..	..	14	178	9650	5.33	19.78	24.1	62.0	1494	24.4	104.2	2642	4	1.0	19.1	89	69	70																																																															
3163	Surat	1935-36	1-5-36	80	..	..	..	..	..	36	146	9600	6.41	21.86	30.0	37.7	1165	31.3	80.4	2517	5	0.8	21.1	89	60	68																																																															
3545	Surat	1936-37	30-3-37	20	10	7.6	8.4	0.3	15.0	0	180	9500	6.16	17.08	20.3	84.0	1705	20.3	128.8	2815	3	1.8	17.1	86	69	67																																																															
3545	Surat	1936-37	31-3-37	24	..	..	..	..	..	23	174	9450	5.37	19.73	23.4	72.8	1704	23.0	113.6	2613	4	2.2	19.0	85	69	63																																																															
3545	Surat	1936-37	31-3-37	30	..	..	..	..	..	10	157	9400	6.22	21.86	23.7	55.0	1604	27.8	98.2	2591	4	2.5	21.3	85	63	67																																																															

\* Diameter of ring frame front roller— $\frac{1}{8}$ ". Diameter of ring— $\frac{1}{16}$ ".  
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 11.—NAVSARI COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.		
732	..	Navsari.	Navsari.	1929-30.	2435	..	Navsari.	Navsari.	1933-34.
1048	..	"	"	1930-31.	2828	..	"	"	1934-35.
1354	..	"	"	1931-32.	3162	..	"	"	1935-36.
1784	..	"	"	1932-33.	3565	..	"	Mahuvar.	1936-37.

### I.—SPINNING TESTS.

#### 1. Treatment :—

- (a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).  
1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.  
1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :—

	NAVSARI.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. ..	White; very bright.	White to creamy-white; bright.	White; bright.	White to creamy-white; bright.	White; bright.	White; bright.	White bright.	White.
Cleanliness ..	A trifle leafy.	Clean to fairly clean.	Fairly clean.	Fairly clean.	Clean.	Clean.	Clean.	Fairly clean, trifle stale
Feel .. ..	Soft and silky.	Silky and bodied.	Very good.	Silky and bodied.	Smooth bodied.	Good.	Smooth and bodied.	Good.
Ginning and Neppiness	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds .. ..	1.25% unginned.	..	..	..	..	..	..	..
Card Sliver	Clean.	Clean.	Clean.	Clean.	Clean.	Soft; clean.	Clean.	Almost
Card Web .. ..	Clear and even.	Very good.	Good.	Even and nep-free.	Full.	Full.	Even and nep-free.	Good.
Weight of ten flat strips	13.3 grams.	8.1 grams; very light.	13.5 grams.	13.5 grams.	20.7 grams.	19.0 grams.	13.3 grams.	12.5 grams
Remarks .. ..	..	A very desirable cotton.	..	..	..	..	..	..

##### (b) Yarn :—

	NAVSARI.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness .. ..	Clean.	Clean.	Clean.	Clean.	A little leafy.	Clean.	Clean.	Almost
Evenness .. ..	Somewhat uneven.	Even.	Even.	Fairly even.	Fairly even.	Even.	Very even.	Fairly
Noppiness .. ..	Neppy.	Fairly free of nep.	Almost free of nep.	Free of nep.	Fairly free of nep.	A trifle neppy.	Nep-free.	Almost of nep.
Stubbiness .. ..	..	..	..	..	..	..	..	..

#### 3. Spinning Test Details and Results :—See Table 11 on page 33.

## II.—REPORT OF THE STANDARDS COMMITTEE FOR NAVSARI COTTON.

[illegible]

Table 11.—SPINNING TEST RESULTS FOR NAVSARI COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Normal.	Weight of Sample (lbs.).	WASTE PERCENTAGES.						RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°C.).	RELATIVE HUMIDITY (%).
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Knots 100 Spindles per hour.	Front Roller Speed R.P.M.	Spindles Speed R.P.M.	Draft.	Turns per Inch.	I.S.A.			BALASTO.			Knots per yard.	Turns per Inch Actual.	Spinning Room.	TEMPERATURE (°C.).	RELATIVE HUMIDITY (%).
															Counts Actual.	Strength (lbs.).	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.).	Count-work Product.					
732	Navsari ..	1929-30	12-5-30	24	10	7.6	8.0	0.7	10.1	08	172	..	8.50	19.73	24.3	55.4	1346	24.3	86.4	1054	4.2	19.8	01	66	66
732	Navsari ..	1929-30	14-5-30	300		..	..	..	..	47	105	..	8.97	24.52	30.5	42.0	1281	31.3	53.4	1828	4.5	23.6	89	66	01
1048	Navsari ..	1930-31	11-5-31	30	8½	6.6	7.5	0.4	13.7	0	180	9800	6.41	17.68	20.1	72.5	1457	20.2	117.2	2307	3	17.3	90	63	07
1048	Navsari ..	1930-31	12-5-31	24		..	..	..	..	9	178	9800	6.38	19.73	21.6	54.0	1396	21.1	98.2	2367	4	19.1	66	66	09
1048	Navsari ..	1930-31	12-5-31	36B		..	..	..	..	37	156	9800	7.05	23.11	26.1	44.7	1361	29.7	81.6	2408	5	22.4	89	68	09
1354	Navsari ..	1931-32	7-6-32	20	16	5.5	7.7	0.4	13.1	0	195	9556	5.08	17.68	16.8	78.8	1566	19.8	135.0	2095	3	17.4	96	67	69
1354	Navsari ..	1931-32	7-6-32	24		..	..	..	..	32	178	9556	7.68	19.73	24.2	57.7	1396	24.5	96.4	2446	4	19.3	61	66	68
1354	Navsari ..	1931-32	8-6-32	30A		..	..	..	..	40	156	9500	6.61	21.88	23.4	48.0	1363	28.2	87.6	2453	5	21.4	91	67	68
1784	Navsari ..	1932-33	30-5-33	24	9	6.2	8.0	0.4	14.1	73	178	9550	5.58	16.73	24.6	62.5	1500	23.7	164.4	2474	4	19.0	91	68	67
1784	Navsari ..	1932-33	31-5-33	30A		..	..	..	..	06	154	9650	7.90	21.86	30.6	44.2	1326	29.7	84.2	2501	4	20.0	61	66	72
2435	Navsari ..	1933-34	9-8-34	20	16	5.0	16.4	0.3	16.6	6	197	9550	6.50	17.08	20.6	85.6	1763	20.3	131.4	2097	3	17.2	84	80	82
2435	Navsari ..	1933-34	9-8-34	36A		..	..	..	..	10	162	8500	6.58	21.86	30.0	49.1	1473	29.4	86.2	2593	5	21.0	84	86	81
2435	Navsari ..	1933-34	9-8-34	34		..	..	..	..	35	148	6656	7.42	23.26	33.4	40.4	1349	33.1	78.8	3008	6	22.4	84	80	81
2828	Navsari ..	1934-35	28-8-35	20	10	3.9	16.0	6.0	15.8	16	199	9500	5.65	17.68	26.7	86.5	1761	20.7	134.8	2796	3	17.0	86	66	72
2828	Navsari ..	1934-35	24-8-35	24		..	..	..	..	0	178	8780	5.29	16.73	23.0	76.2	1708	23.8	116.6	2775	3	16.0	85	72	72
2828	Navsari ..	1934-35	24-8-35	36A		..	..	..	..	30	157	6500	6.71	21.86	31.2	48.5	1513	31.5	85.4	2096	4	20.7	86	71	76
3102	Navsari ..	1935-36	30-4-36	20	16	3.3	7.1	0.3	10.4	5	165	8666	5.85	17.08	20.6	85.8	1716	19.6	125.2	2491	3	17.3	80	69	76
3162	Navsari ..	1935-36	30-4-36	24		..	..	..	..	27	178	9700	5.43	19.73	24.3	63.5	1643	24.1	164.8	2521	3	19.1	86	71	71
3162	Navsari ..	1935-36	1-5-36	30A		..	..	..	..	20	150	8900	6.41	21.86	26.5	46.3	1454	29.6	85.8	2540	4	21.0	86	66	72
3565	Navsari ..	1936-37	13-4-37	20	10	5.6	8.9	6.4	14.2	16	210	10200	5.95	17.08	26.0	61.7	1834	19.8	136.4	2861	4	17.0	88	68	68
3565	Navsari ..	1936-37	13-4-37	24		..	..	..	..	27	178	9500	5.44	16.73	24.6	68.8	1603	23.0	110.0	2628	4	18.8	80	68	67
3565	Navsari ..	1936-37	14-4-37	30A		..	..	..	..	23	160	9500	6.62	21.80	26.8	53.0	1597	23.7	89.2	2566	5	20.6	83	68	68

\* Diameter of ring frame front roller—1½". Diameter of Ring 14".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

## 12.—DHOLLERAS COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
724	Dholleras (Fine) Vagadia	Wadhwan	1929-30.
725	Dholleras (Superfine) Vagadia	"	1929-30.
1126	Dhollera Vagadia	"	1930-31.
1368	" "	Limbdī	1931-32.
1886	" "	Kadi	1932-33.
2357	" "	Wadhwan	1933-34.
2830	" "	Manavadar	1934-35.
3231	" "	Bawla	1935-36.
3697	" "	Dhandhuka	1936-37.

## I.—SPINNING TESTS.

## 1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

## 2. Spinning Master's Report :—

(a) *Cotton* :—

DHOLLERAS.									
Season.	1929-30. (Fine)	1930-30. (Superfine)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. ..	White to creamy-white.	Dullish white.	Creamy-white.	Dullish white.	White to creamy white; brightish.	White to creamy white; fairly bright.	Dullish creamy white.	White to creamy white; bright.	White to creamy white.
Cleanliness .. ..	Very leafy (sandlike leaf); a good deal stained.	Leafy; slightly stained.	Leafy; occasional spot of stain.	Leafy.	Somewhat leafy.	Very leafy with occasional stains.	Stained; leafy.	Fairly leafy.	Very leafy.
Feel .. ..	.. ..	Better feel than Fine Dholleras	Somewhat soft.	Good.	Good.	Good.	Fairly Good.	Good bodied.	Fairly Good.
Glinting and neppiness	Fairly well-glinted.	Fairly well-glinted.	Fairly well-glinted.	Well-glinted.	..	Well-glinted.	Somewhat knotted.	Well-glinted.	Well-glinted.
Seeds .. ..	Occasional cut; a fair amount of unripe fibre and 2 per cent. seeds—mostly unglinted.	..	1.5% unglinted.	2.1% and unglinted.	2% partly glinted.	3.75% unglinted (kaps).	..	..	..
Card Silver .. ..	Clear.	Clear.	A little leafy.	Almost clean.	Clean.	Fairly clean.	Almost clean.	Almost clean.	Good; a little leafy.
Card Web .. ..	Clear.	Clear.	Even and practically neppy.	Good.	Even and neppy.	Good.	Good.	Good.	Good; a little neppy.
Weight of 10 flatstrips	16.6 grams.	..	21.2 grams.	13.5 grams.	16.0 grams.	20.2 grams.	24.6 grams.	15.4 grams.	23.5 grams.
Remarks .. ..	A poor, wasty sample.	Staple fine for its length but irregular in length and strength.	Fully Pressed.	Folly pressed.	..	..	..	..	..

(b) *Yarn* :—

DHOLLERAS.									
Season.	1929-30. (Fine.)	1930-30. (Superfine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness .. ..	Fairly clean	Clean	Fairly clean	Clean	Clean	Clean	Fairly clean	Almost clean	Fairly clean.
Evenness .. ..	Fairly even	Somewhat uneven.	Fairly even	Even	Even	Even	Even	Even	Even.
Neppiness .. ..	A little neppy.	A little neppy.	Fairly neppy.	Free of nep.	Free of nep.	Slightly neppy.	Almost free of nep.	Practically free of nep.	Fairly free of nep.
Slubbiness .. ..	Slabby	Slabby	..	..	..	..	..	..	..

3. *Spinning Test Details and Results* :—See Table 12 on page 36.



Table 12.—SPINNING TEST RESULTS FOR DHOLLERAS COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.).	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	L.S.A.			BALLENING.			Reps per yard.	Turns per inch Actual.	Spinning Room.			Finishing Room.
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rep. (inch-lb.).	Count-Work Product.						
724	Dholleras	1929-30	7-5-30	20A	10	10.6	10.0	0.7	25.5	50	160	..	0.70	17.08	10.3	43.9	968	19.8	66.8	1719	4	3.0	17.1	90	04	64
724	(Fine) Dholleras	1929-30	7-5-30	20B	..	..	..	..	..	10	172	..	0.70	20.23	10.5	57.3	1117	19.0	94.2	1840	5	3.5	10.1	90	05	64
725	Dholleras	1929-30	7-5-30	20A	10	14.1	0.0	0.9	22.5	70	160	..	0.70	17.08	20.3	41.3	838	20.1	83.2	1697	5	2.5	17.2	90	05	64
725	(Superfine) Dholleras	1929-30	7-5-30	20B	..	..	..	..	..	45	172	..	0.70	20.23	20.0	53.5	1070	20.2	87.0	1757	5	3.7	10.3	90	05	63
1120	Dholleras.	1930-31	2-7-31	16	9	14.2	11.8	0.6	24.9	40	198	8800	5.75	15.07	15.8	76.4	1507	10.3	129.0	2103	3	4.7	15.5	86	78	79
1120	Dholleras.	1930-31	2-7-31	20A	..	..	..	..	..	110	170	8850	0.10	17.08	10.5	55.0	1072	19.9	102.8	2040	4	5.2	17.1	89	75	81
1120	Dholleras.	1930-31	2-7-31	20B	..	..	..	..	..	70	187	10750	0.55	20.23	10.9	62.1	1230	19.8	110.2	2182	4	4.7	10.4	87	70	84
1368	Dholleras.	1931-32	21-6-32	14	10	13.6	8.1	0.6	21.1	7	196	7750	5.00	14.08	13.0	65.0	1592	14.0	170.0	2330	3	0.8	14.4	89	09	70
1368	Dholleras.	1931-32	21-6-32	10	..	..	..	..	..	30	190	8300	5.00	15.07	10.0	73.2	1173	16.3	127.4	2077	3	0.5	15.3	90	09	74
1368	Dholleras.	1931-32	21-6-32	20A	..	..	..	..	..	52	174	8700	5.71	17.08	10.4	58.4	1133	19.2	108.0	2047	4	0.8	17.2	90	06	70
1866	Dholleras.	1932-33	22-8-33	14	10	12.2	11.0	0.4	23.2	51	198	8250	5.21	14.08	14.0	81.4	1182	13.8	189.0	2608	3	0.5	14.0	89	60	00
1866	Dholleras.	1932-33	23-8-33	16	..	..	..	..	..	55	184	8300	5.00	15.97	15.8	72.0	1147	15.7	101.4	2334	4	1.0	15.4	88	71	71
2357	Dholleras.	1933-34	29-6-34	16	10	18.6	11.3	0.3	28.0	30	192	8250	5.11	15.07	10.1	70.4	1270	15.9	158.4	2510	3	1.5	15.5	80	78	80
2357	Dholleras.	1933-34	29-6-34	20A	..	..	..	..	..	42	175	8550	5.88	17.08	10.9	60.2	1198	20.1	114.8	2397	4	1.8	17.3	80	80	83
2357	Dholleras.	1933-34	29-6-34	20B	..	..	..	..	..	52	183	9800	5.80	19.20	20.0	62.3	1252	20.5	110.4	2283	4	2.0	18.5	85	80	80
2830	Dholleras.	1934-35	29-8-35	12	10	13.8	13.3	0.6	25.0	7	193	7350	5.25	13.92	12.3	100.0	1237	12.2	212.4	2501	3	1.0	13.3	87	71	82
2830	Dholleras.	1934-35	27-8-35	16	..	..	..	..	..	67	198	8650	5.33	15.97	15.1	70.0	1157	15.3	158.8	2430	3	0.8	15.1	87	71	91
2830	Dholleras.	1934-35	27-8-35	20B	..	..	..	..	..	94	180	9550	5.71	19.20	20.2	51.7	1044	20.1	105.4	2110	4	1.0	18.5	87	70	72
3231	Dholleras.	1935-36	16-6-36	12	10	8.9	8.2	0.2	16.5	7	194	7350	5.31	13.92	12.7	97.4	1237	12.3	207.2	2549	3	0.8	13.5	88	69	74
3231	Dholleras.	1935-36	16-6-36	16	..	..	..	..	..	24	192	8550	5.33	15.97	15.7	75.1	1170	16.0	162.0	2592	4	1.0	15.4	80	68	76
3697	Dholleras.	1936-37	12-7-37	12	10	15.8	15.1	0.3	29.7	15	207	7800	5.42	13.92	12.5	103.2	1250	12.5	213.0	2670	3	1.8	13.5	84	70	84
3697	Dholleras.	1936-37	10-7-37	14	..	..	..	..	..	0	193	7800	5.44	14.09	11.0	80.4	1210	14.1	186.4	2628	3	1.5	14.5	85	78	80
3697	Dholleras.	1936-37	10-7-37	16	..	..	..	..	..	0	194	8200	5.95	15.07	10.0	68.4	1004	16.5	162.8	2686	5	1.8	15.1	84	77	80

\* Diameter of ring frame front roller—7". Diameter of ring—3½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.



### 13.—KALAGIN COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
757	Kalagin	Manavadar	1929-30
1155	"	"	1930-31
1431	"	Porbunder	1931-32
1888	"	"	1932-33
2358	"	"	1933-34
2771	"	"	1934-35
3327	"	Manavadar	1935-36
3696	"	Porbunder	1936-37

#### I. SPINNING TESTS.

##### 1. Treatment:—

(a) *Blow-room*.—Upto 1933-34:—Porcupine Crighton (twice), Hopper, Scutcher (3 times). 1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust-trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.  
1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report:—

##### (a) Cotton:—

KALAGIN.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour ..	Dull creamy-white; fairly bright.	Creamy white.	White to creamy-white	Creamy white; brightish.	Creamy white; fairly bright.	Creamy white.	White to creamy-white; brightish.	White to creamy-white; brightish.
Cleanliness ..	Very leafy indeed.	Very leafy	Very leafy	Very leafy	Very leafy; noticeably stained.	Very leafy	Leafy.	Very leafy.
Feel ..	..	Good-bodied.	..	Good ..	Good soft ..	Good ..	Good smooth.	Good.
Ginning & Neps ..	Fairly well-ginned.	A trifle knotted.	A trifle knotted and nepped.	..	Well-ginned.	Fairly well-ginned.	Well-ginned.	Well-ginned.
Seeds ..	2.5% unginned.	3.5% ginned and unginned	Too many out seeds besides 3.75% mainly unginned.	2.1% partly ginned and unginned.	2.35% clean and unginned	Contains a good amount of partly ginned and full clean seeds.	..	A few seeds.
Card Sliver ..	A little leafy	A trifle leafy	Leafy	Leafy	Leafy	Leafy	Leafy.	Very leafy.
Card Web ..	..	Even and neps free.	Fairly good	Good	Full	Full	Good.	Good; neps free
Weight of 10 flat strips.	16.9 grams	20.5 grams	23.8 grams	22.4 grams	32.0 grams	36.0 grams	18.7 grams.	40.0 grams.
Remarks ..	Licker-in No. 1 all trash; a fair amount of leaf shed over beam and ring rails.	Fully pressed.	..	..	..	..	..	Very heavy strips; much waste the blow and card.

##### (b) Yarn:—

KALAGIN.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Fairly leafy	A little leafy	A little leafy	Leafy	Very leafy	Leafy	Leafy.	Leafy.
Evenness ..	Fairly even	Fairly even	Even	Fairly even	Somewhat uneven.	Even	Fairly even.	Fairly even.
Neppiness ..	Free of neps	Fairly free of neps.	Almost free of neps.	Free of neps	Slightly neppy.	..	A trifle neppy.	Fairly free neps.
Slobbiness ..	..	..	..	..	..	A little slubby.	..	..

##### 3. Spinning Test Details and Results.—See Table 13 on page 39.

## II.—REPORT OF THE STANDARDS COMMITTEE FOR KALAGIN COTTON.

[illegible]

Table 13.—SPINNING TEST RESULTS FOR KALAGIN COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE.		RELATIVE HUMIDITY (%).				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	TRA.			Diameter.			Evenness Class.		Keps per yard.	Turns per Inch Actual.	Spiraling Room.	Spiraling Room.
															Counts Actual.	Strength (lbs.)	Count-Strong Product.	Counts Actual.	Work of Rupture (Inch-lb.)	Count-Work Product.						
707	Kalagin	1929-30	14-6-30	20A	10	18.3	10.5	0.0	27.3	10	100	..	1.00	17.08	10.7	73.8	1164	20.2	112.8	2270	3	1.6	17.2	00	08	70
707	Kalagin	1929-30	14-6-30	24		..	..	..	..	40	170	..	5.95	19.73	23.8	55.5	1321	21.1	80.2	1057	5	2.0	10.0	00	08	69
1160	Kalagin	1930-31	14-8-31	20A	10	10.3	12.5	0.0	26.4	74	101	8100	5.83	17.08	20.3	51.0	1031	20.1	101.1	2130	1	1.7	17.2	85	78	80
1160	Kalagin	1930-31	14-8-31	20C		..	..	..	..	120	100	10850	5.05	20.23	10.8	97.1	1329	10.7	111.0	2210	4	2.0	10.4	87	74	81
1431	Kalagin	1931-32	23-8-32	20A	0	22.0	10.2	0.8	35.2	143	166	8900	5.43	17.08	20.2	53.7	1095	20.3	102.0	2083	3	1.2	17.2	00	70	71
1431	Kalagin	1931-32	23-8-32	20C		..	..	..	..	211	100	10890	5.43	20.23	20.0	63.7	1274	19.7	109.0	2147	3	1.0	10.3	01	08	71
1888	Kalagin	1932-33	23-8-33	10	10	18.3	14.7	0.3	30.5	24	182	8150	5.43	15.07	10.1	70.8	1239	10.4	138.6	2273	4	1.0	15.2	88	70	70
1888	Kalagin	1932-33	23-8-33	20A		..	..	..	..	83	109	8350	5.43	17.08	10.7	61.7	1215	10.0	109.8	2185	5	1.2	10.0	87	73	68
2308	Kalagin	1933-34	30-6-34	14	10	18.8	10.8	0.0	35.2	190	100	7700	5.11	14.08	14.0	78.2	1095	13.7	170.2	2332	1	1.8	14.1	80	70	80
2368	Kalagin	1933-34	20-6-34	10		..	..	..	..	130	180	7800	5.88	15.07	10.1	58.8	013	10.3	121.0	1982	5	1.8	15.1	80	80	82
2368	Kalagin	1933-34	20-6-34	20B		..	..	..	..	145	100	8350	5.80	19.20	20.3	47.3	060	20.1	98.8	2010	5	2.0	18.1	85	80	80
2771	Kalagin	1934-35	10-7-35	14	10	15.6	10.8	0.2	32.6	22	210	8000	5.11	14.08	13.8	105.1	1450	13.7	201.2	2750	3	2.2	14.4	81	70	77
2771	Kalagin	1934-35	20-7-35	10		..	..	..	..	12	108	8950	5.05	15.07	10.3	81.0	1335	10.0	162.2	2595	3	2.5	15.0	83	77	73
2771	Kalagin	1934-36	18-7-35	20B		..	..	..	..	21	182	8600	0.10	10.20	20.5	61.5	1291	20.5	114.8	2353	4	2.6	18.5	85	75	78
3327	Kalagin	1935-36	22-8-36	14	10	10.0	12.8	0.2	22.3	0	202	8350	5.31	14.08	14.3	102.7	1460	14.1	212.8	3000	1	1.5	14.5	83	77	09
3327	Kalagin	1935-36	22-8-36	10		..	..	..	..	6	104	8450	0.02	15.07	10.0	87.7	1403	10.0	174.0	2704	4	1.8	15.3	85	75	09
3327	Kalagin	1935-36	21-8-36	20B		..	..	..	..	21	104	10100	0.07	10.20	20.0	72.8	1456	10.0	122.2	2432	4	2.0	18.4	80	73	70
3600	Kalagin	1936-37	20-7-37	12	10	17.8	24.1	0.4	37.8	7	207	7050	1.00	13.02	11.8	100.8	1260	..	..	..	4	1.5	13.5	80	80	81
3600	Kalagin	1936-37	9-7-37	14		..	..	..	..	15	102	7700	5.24	14.08	13.8	70.0	1040	11.2	101.8	2340	1	1.0	14.3	80	77	82
3600	Kalagin	1936-37	12-7-37	10A		..	..	..	..	42	178	7600	5.33	16.07	10.1	50.0	011	10.3	133.8	2181	4	1.5	15.1	83	78	81
3600	Kalagin	1936-37	12-7-37	10B		..	..	..	..	0	188	8000	5.33	10.07	10.0	71.8	1119	13.8	148.2	2342	4	1.5	10.1	84	70	80

\* Diameter of ring frame front roller—1". Diameter of rings—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

### 14.—KADI-VIRAMGAM COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
727 ..	∴ Kadi-Viramgam	Kadi ..	1929-30.
1161 ..	∴	∴ ..	1930-31.
1430 ..	∴	Jotana ..	1931-32.
1887 ..	∴	Kadi ..	1932-33.
2459 ..	∴	Viramgam.	1933-34.
3326 ..	∴	∴	1935-36.
3588 ..	∴	Kadi ..	1936-37.

#### I. SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1935-36 and 1936-37 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

(a) *Cotton* :—

KADI-VIRAMGAM.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.
Colour ..	Creamy to creamy-white.	White to creamy-white.	White to creamy-white.	Creamy-white; brightish.	White to creamy-white.	White to creamy-white; brightish.	White to creamy-white.
Cleanliness ..	Leafy ..	Leafy; slightly stained.	Leafy ..	Very leafy ..	Slightly stained; leafy.	A little stained; leafy.	Leafy.
Feel ..	..	Moderately good.	Good ..	Good ..	Good ..	Good ..	Fairly good.
Ginning and neppiness.	..	Well-ginned ..	∴	Well-ginned ..	Well-ginned ..	A trifle knotted.	Well-ginned.
Seeds ..	Far too much cut seed.	1.25% seeds ..	Considerable number of out besides 1.1% ginned and unginned.	1.2% unginned.	1.72% seeds ..	..	..
Card aliver ..	Clean ..	Fairly clean ..	Clean ..	Almost clean ..	A little leafy ..	A little leafy ..	A little leafy.
Card web ..	Clear ..	Even and nopy-free.	Fairly good ..	Good ..	Good ..	Fairly good ..	Good.
Weight of 10 flat strips.	16.2 grams ..	17.8 grams ..	17.8 grams ..	22.6 grams ..	26.7 grams ..	17.7 grams ..	15.6 grams.
Remarks ..	Fairly well-watered at the time of pressing.	Fully-pressed.	..	Well-watered.	..	..	..

(b) *Yarn* :—

KADI-VIRAMGAM.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.
Cleanliness ..	Clean ..	Fairly clean ..	Clean ..	A trifle leafy ..	Clean ..	Almost clean.	Fairly clean.
Evenness ..	Even ..	Fairly even ..	Fairly even ..	Fairly even ..	Fairly even ..	Fairly even.	Even in the lower counts.
Neppiness ..	A little nopy.	Some with neppy.	Fairly nep-free.	Free of nep ..	Fairly nopy ..	Fairly free of nep.	Fairly free of nep.
Slubbiness ..	Slubby ..	..	..	Occasional slab.	..	..	..

##### 3. Spinning Test Details and Results :—See Table 14 on page 42.

# II.—REPORT OF THE STANDARDS COMMITTEE FOR KADI-VIRAMGAM.

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KADI-VIRAMGAM.									
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.		
Contract valued under	F. G. M. G. Broach	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach Hedge No. 2.	F. G. M. G. Broach Hedge Contract No. 2.	F. G. M. G. Broach Hedge Contract No. 2.	H. O. No. 2.	April/May 1937 delivery.
Class	Superfine	Strict fine	Fine	Fine to superfine	Fully good to fine	Fine to superfine	Fine.		
Colour	Silvery	Creamy-white	White	Creamy-white	Dull-white	White	Dull-white.		
Staple Length	7/8 inch	Barely 7/8 inch	Full 3/4 inch	5/8 inch	Full 3/4 inch	3/4 inch	11/16 inch.		
Staple Strength	Fair	Fair	Fair	Fair	Fair	Moderate	Fair.		
Regularity	Fair	Irregular	Irregular	Irregular	Fair	Fairly regular	Regular but soft.		
Value above or below contract rate	Rs. 7 on	Rs. 8 on	Rs. 4 on	Rs. 3 off	Rs. 3 on	Rs. 2 on	Rs. 5 off.		
Basis	Rs. 255	Rs. 143	Rs. 219					F. G. M. G. Broach H. O. No. 2.	April/May 1937 delivery, Rs. 233.
Date of Valuation	29-4-30	25-8-31	17-8-32	26-7-33	13-8-34	8-8-36	23-4-37.		
Remarks	This year poor character.								

Table 14.—SPINNING TEST RESULTS FOR KADI-VIRAMGAM COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)
				Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	LEA.			BALLISTIC.			Evensness Class.	Neps per yard.	Turns per inch Actual.	Splining Room.	Testing Room.		
													Counts Actual.	Strength (lbs.).	Count-Strength Product.	Counts Actual.	Work of (inch-lb.).	Count-Work Product.							
727	Kadi-Viramgam.	1929-30	8-8-30	12.7	9.8	0.7	21.8	35	163	..	0.25-	17.98	10.1	48.4	024	10.5	83.8	1634	4	5.2	17.2	91	64	64	
727	Kadi-Viramgam.	1929-30	8-8-30	..	..	..	..	60	170	..	0.25	20.33	10.1	58.2	1112	19.3	00.2	1741	5	3.5	10.2	02	64	63	
1101	Kadi-Viramgam.	1930-31	1-9-31	14.1	10.2	0.6	23.3	40	184	8000	0.25	17.08	20.2	60.6	1224	20.1	105.1	2150	4	3.0	17.1	85	74	77	
1161	Kadi-Viramgam.	1930-31	1-9-31	..	..	..	..	88	150	8500	0.70	19.73	23.6	40.2	1090	23.4	03.0	2176	4	3.5	18.8	85	72	81	
1430	Kadi-Viramgam.	1931-32	22-8-32	17.7	12.3	0.6	29.3	21	183	8000	5.08	17.08	10.5	60.2	1291	10.4	116.2	2251	4	1.5	17.2	80	70	71	
1430	Kadi-Viramgam.	1931-32	22-8-32	..	..	..	..	47	154	8450	5.05	10.73	23.5	50.3	1182	23.8	03.2	2218	5	2.8	18.0	89	70	70	
1887	Kadi-Viramgam.	1932-33	22-8-33	11.0	13.1	0.6	24.1	224	170	7500	5.43	15.07	15.8	55.5	877	15.3	133.6	2011	4	0.8	15.1	87	75	69	
1887	Kadi-Viramgam.	1932-33	22-8-33	..	..	..	..	218	168	8300	5.55	17.08	10.8	35.3	609	10.9	04.1	1870	1	1.0	17.3	87	67	69	
2459	Kadi-Viramgam.	1933-34	21-8-34	17.8	14.7	0.6	30.3	42	198	0600	5.33	17.08	20.4	63.4	1293	20.8	112.8	2310	3	4.5	17.1	85	77	76	
2450	Kadi-Viramgam.	1933-34	22-8-34	..	..	..	..	36	179	0500	5.33	19.73	23.7	54.1	1282	24.1	98.0	2262	4	1.0	18.8	84	77	70	
2459	Kadi-Viramgam.	1933-34	22-8-34	..	..	..	..	122	135	9000	0.07	23.11	29.7	37.2	1103	29.8	76.8	2259	5	1.0	22.1	81	77	78	
3320	Kadi-Viramgam.	1935-36	21-8-36	10.3	12.2	0.4	21.6	22	202	3400	5.10	14.98	13.9	85.3	1180	11.1	170.2	2100	1	1.8	11.5	86	71	72	
3326	Kadi-Viramgam.	1935-36	24-8-36	..	..	..	..	12	195	8400	5.81	15.97	10.4	61.6	1010	10.3	130.8	2132	1	2.0	16.1	86	71	70	
3326	Kadi-Viramgam.	1935-36	21-8-36	..	..	..	..	53	190	10100	5.81	10.20	20.2	50.0	1192	20.2	101.8	2117	5	1.5	18.0	83	75	76	
3588	Kadi-Viramgam.	1936-37	30-1-37	13.7	0.6	0.4	22.3	7	206	8500	5.33	14.98	14.5	82.9	1185	11.2	178.8	2339	3	1.2	11.3	89	67	68	
3588	Kadi-Viramgam.	1936-37	30-1-37	..	..	..	..	36	194	8100	0.13	15.97	10.7	62.9	1050	16.5	132.0	2178	4	1.5	15.1	89	69	66	
3588	Kadi-Viramgam.	1936-37	29-1-37	..	..	..	..	16	195	10200	5.83	19.26	10.9	61.4	1222	19.0	103.2	2110	5	1.2	18.3	89	69	66	

\* The ring frame front-roller used in the spinning of these yarns has a diameter of  $\frac{1}{2}$  inch. The diameter of rings— $1\frac{1}{4}$  inch. † It is to be noted that the total loss is for a small sample weighing 10 lbs., or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

## 15.—WESTERNS COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after selection and approval by their Standards Committee, in accordance with an arrangement made by the Association to supply to the Technological Laboratory, for testing, samples of fair average quality of the commercial crop.

Sample No.	Cotton.	Place.	Season.
795	Westerns	Bellary	1929-30.
1127	Westerns	Adoni.	1930-31.
1370	Westerns	Adoni.	1931-32.
1889	Westerns	Raichur.	1932-33.
2356	Westerns	Adoni.	1933-34.
2838	Westerns	Raichur.	1934-35.
3398	Westerns	Adoni.	1935-36.
3635	Westerns	Adoni.	1936-37.

## I.—SPINNING TESTS.

## Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. I.

1934-35 onwards :—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. I possesses a band drive arrangement.

2. *Spinning Master's Report* :—(a) *Cotton* :—

WESTERNS.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. .. Creamy; fairly bright.	Creamy-white.	Creamy-white.	Creamy-white.	Creamy-white.	Creamy-white.	Dull creamy.	Creamy-white; dullish.	Creamy-white to white.
.. .. Very leafy.	Leafy; rather badly stained.	Leafy; slightly stained.	Much stained leafy.	Very leafy.	Badly stained leafy.	Leafy; slightly stained.	Leafy.	Fairly ..
.. .. Good.	Fairly good but softish.	Softish.	Poorish.	Good.	Good.	Good.	Good.	Well-ginned
neppiess.. ..	Fairly well-ginned.	Well-ginned.	S o m e-w h a t knotted.	Well-ginned.	S o m e-w h a t knotted.	A trifle knotted.	..	..
.. .. 1.72% full clean.	..	0.7% ginned and unginned.	..	1% full clean.	..	..	..	..
.. ..	A trifle leafy.	A little leafy.	Almost clean.	Fairly leafy.	Fairly clean.	Almost clean.	Good; leafy.	Good; leafy.
.. ..	Very slightly neppy.	Good.	Good.	Good even.	A little neppy.	Even; free.	neppy.	Good; neppy.
flat strips..	21.2 grams.	17.6 grams.	14.3 grams.	18.4 grams.	23.7 grams.	22.5 grams.	14.7 grams.	17.8 grams.
.. .. Licker-in fly No. 1 all trash	..	..	..	..	..	..	..	..

(b) *Yarn* :—

WESTERNS.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. .. Fairly clean.	Fairly clean.	Fairly clean.	Fairly clean.	Clean.	A little leafy.	Almost clean.	Almost clean.	A little leafy.
.. .. Fairly uneven.	Fairly even.	Fairly even.	Even.	Fairly even.	Fairly even.	Even.	Fairly even.	Even.
.. .. Very neppy.	Neppy.	A little neppy.	Fairly free of nep.	S o m e-w h a t neppy.	Fairly free of nep.	Fairly free of nep.	S o m e-w h a t neppy.	Almost ..
.. ..	..	..	..	Slubby.	Slightly slubby.	..	..	..

3. *Spinning Test Details and Results* :—See Table 15 on page 45.

# II.—REPORT OF THE STANDARDS COMMITTEE FOR WESTERNS.

WESTERNS.									
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	..	F.G.M.G. Broach.	F.G.M.G. Broach No. 2.	F.G.M.G. Broach No. 2.	F.G.M.G. Broach No. 2.	F.G.M.G. Broach No. 2.	F.G.M.G. Broach No. 2.	F.G.M.G. Broach No. 2.	F.G.M.G. Broach No. 2.
Class	..	Fine.	Superfine.	Superfine.	Good to Fully good.	Fully good.	Fine.	Fine.	Superfine.
Colour	..	Brownish.	Yellowish.	Brownish-dull white.	Brownish.	Brownish white.	Brownish.	Creamy brown.	Brownish white.
Staple Length	..	13/16 inch.	Full 3/4 inch.	3/4 inch.	5/8 inch.	3/4 inch.	13/16 inch.	11/16 inch.	13/16 inch.
Staple Strength	..	Good.	Fairly good.	Weak.	Fair.	Fair.	Moderate.	Poor.	Good.
Regularity	..	Irregular.	Irregular.	Irregular.	Irregular.	Irregular.	Fair.	Irregular.	Fairly regular.
Valued above or below Contract rate	..	Rs. 25 on.	Rs. 10 on.	Rs. 8 on.	Rs. 5 off.	Par.	Rs. 30 on.	Rs. 10 off.	Rs. 30 on.
Basis	..	F.G.M.G. Broach.	Rs. 177.	Rs. 152.	F.G.M.G. Broach No. 2.	F.G.M.G. Broach No. 2.	F.G.M.G. Broach No. 2.	F.G.M.G. Broach No. 2.	F.G.M.G. Broach No. 2.
Date of Valuation	..	16-7-30.	14-7-31.	13-6-32.	28-7-33.	10-6-34.	20-8-35.	5-10-36.	20-5-37.
Remarks	..	..	Probably mixed with Mungari.	..	..	..	..	..	..



Table 15.—SPINNING TEST RESULTS FOR WESTERNS.

Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE. (°F.).	RELATIVE HUMIDITY. (%)			
				Weight of Sample, lbs.	Blow Room Loss.			Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front R.P.M.	Spindle speed R.P.M.	Draft.	Turns per inch.	LEA.			BALISTIC.			Tensile Class.	Knots per yard.			Turns per inch Actual.	Spinning Room.	
					Blow Room Loss.	Card Room Loss.	Spinning Loss.							Counts Nominal.	Strength (lbs.)	Count-length Product.	Counts Actual.	Work of Rupture (inch-lb.).	Count. Work Product.							
705	Westerns ..	1929-30	24-7-30	20A	10	13.0	11.0	0.7	21.7	68	170	..	5.32	17.95	19.0	19.4	969	20.0	94.2	1894	4	10.7	17.0	80	70	72
706	Westerns ..	1929-30	24-7-30	20B		..	..	..	..	50	192	..	5.32	20.23	19.3	68.7	1287	19.3	107.8	2031	4	11.5	19.3	87	71	76
1127	Westerns ..	1930-31	24-7-31	20A	10	10.8	10.8	0.4	20.7	30	190	9150	6.12	17.94	20.1	68.6	1339	20.0	115.6	2312	4	9.0	16.0	83	75	82
1127	Westerns ..	1930-31	23-7-31	24		..	..	..	..	40	150	8200	6.45	19.73	23.7	52.0	1232	24.3	92.0	2250	5	9.5	19.7	97	76	80
1370	Westerns ..	1931-32	23-6-32	20A	10	11.2	9.0	0.5	19.7	36	194	9500	5.57	17.93	19.4	77.7	1507	19.7	126.4	2100	3	2.5	17.3	86	69	78
1370	Westerns ..	1931-32	23-6-32	24		..	..	..	..	8	175	9200	6.24	19.73	21.1	29.6	1331	23.2	101.2	2143	4	3.0	19.3	86	72	75
1880	Westerns ..	1932-33	1-0-33	10	10	15.0	10.8	0.4	21.5	73	181	8000	5.33	15.97	16.0	74.4	1183	16.1	132.0	2125	4	2.0	16.2	86	63	07
1880	Westerns ..	1932-33	31-8-33	20A		..	..	..	..	151	178	8300	5.55	17.95	19.9	55.4	1102	20.3	103.0	2091	5	2.0	17.2	87	69	67
2366	Westerns ..	1933-34	20-6-34	16	10	14.1	13.0	0.5	23.0	62	192	8250	5.63	15.97	16.0	71.7	1141	15.9	133.0	2111	4	2.5	15.4	80	78	81
2366	Westerns ..	1933-34	28-6-34	20A		..	..	..	..	169	175	8350	5.93	17.94	19.5	55.3	1095	19.9	102.6	2042	5	2.0	17.3	80	80	85
2366	Westerns ..	1933-34	28-6-34	20B		..	..	..	..	114	183	9400	5.94	17.26	20.0	69.2	1204	19.7	107.0	2103	1	2.5	18.4	83	80	80
2838	Westerns ..	1934-35	31-8-35	16	10	10.8	12.7	0.2	22.3	19	109	8900	5.80	15.97	15.9	107.2	1704	16.0	183.0	2929	3	1.8	15.4	85	75	74
2838	Westerns ..	1934-35	30-8-35	20A		..	..	..	..	26	173	8550	5.93	17.95	20.1	75.2	1512	20.1	129.2	2597	3	2.2	17.0	80	75	74
2838	Westerns ..	1934-35	31-8-35	20B		..	..	..	..	10	185	9600	6.07	19.26	20.5	70.2	1624	20.6	127.6	2659	3	2.0	18.3	85	76	72
3308	Westerns ..	1935-36	14-10-36	16	10	12.5	10.5	0.2	21.8	0	194	8200	5.71	15.97	16.5	80.0	1330	16.5	136.2	2247	3	3.5	15.4	89	68	61
3308	Westerns ..	1935-36	14-10-36	20A		..	..	..	..	5	181	9000	5.83	17.95	19.7	66.0	1300	19.9	111.4	2206	4	2.5	17.1	88	70	64
3308	Westerns ..	1935-36	14-10-36	20B		..	..	..	..	5	197	10350	5.95	19.26	20.3	72.2	1166	20.6	109.2	2250	4	2.5	18.7	87	69	63
3635	Westerns ..	1936-37	28-5-37	16	10	12.1	10.8	0.3	21.0	6	200	8700	6.34	16.97	15.6	96.2	1485	16.1	131.4	2189	3	1.2	15.3	90	67	66
3635	Westerns ..	1936-37	20-5-37	20A		..	..	..	..	16	107	9500	6.03	17.95	20.7	59.3	1225	20.8	107.8	2242	4	1.2	17.3	90	68	66
3635	Westerns ..	1936-37	20-5-37	20B		..	..	..	..	10	198	10200	6.03	19.26	20.6	69.0	1421	20.9	111.0	2309	4	1.8	18.5	89	69	66

\* Diameter of ring frame front roller—7/8". Diameter of rings—1-5/8".  
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 16.—FARM WESTERNS COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
758	Farm Westerns	Guntakal	1929-30
1128	"	Adoni	1930-31
1371	"	Bellary	1931-32
1890	"	Adoni	1932-33
2297	"	Bellary	1933-34
2772	"	Adoni	1934-35
3323	"	Raichur	1935-36
3654	"	Guntakal	1936-37

### I.—SPINNING TESTS.

#### 1. Treatment:—

(a) *Blow-room*.—Upto 1933-34:—Porcupino, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34:—Card, Drawing (2 heads), Slubbor, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report:—

##### (a) Cotton:—

		FARM WESTERNS.							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour ..	Creamy ..	Creamy ..	Creamy-white.	Creamy-white.	Creamy-white.	White to creamy-white; fairly bright.	Creamy-white; fairly bright.	Creamy-white.	Creamy-white.
Cleanliness ..	Very leafy ..	Leafy ..	Leafy; a good deal stained.	Stained; leafy ..	Leafy ..	Leafy ..	Leafy ..	Leafy (fine leaf); stained.	Leafy.
Feel ..	..	Good ..	Good softish ..	Good ..	Good ..	Good ..	Good ..	Good.	Good.
Ginning and neppiness.	Fairly well-ginned.	Well-ginned ..	Well-ginned ..	Somewhat knotted.	Well-ginned ..	Well-ginned ..	A little knotted.	..	..
Seeds ..	1.50% ginned and unginned.	..	1.4% ginned and unginned.	..	2.2% unginned and full clean.	Contains too many full clean.	Few.	Ginned 0.86%	..
Card sliver ..	Fairly clean ..	Slightly leafy.	A little leafy ..	Clean ..	Fairly clean ..	Leafy ..	Almost clean.	A little leafy.	..
Card web ..	..	Even and almost nep-free.	Good ..	Good ..	Good even ..	Full ..	Good.	Good.	..
Weight of 10 flat strips.	16.4 grams ..	18.7 grams ..	10.0 grams ..	18.5 grams ..	10.3 grams ..	25.1 grams ..	15.1 grams ..	16.2 grams.	..
Remarks ..	Much leaf shed over beam and ring rails.	Fully pressed ..	..	..	..	..	..	..	..

##### (b) Yarn:—

		FARM WESTERNS.							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Fairly leafy ..	A little leafy ..	Fairly clean ..	Clean ..	Almost clean ..	Somewhat leafy.	Almost clean.	Leafy.	..
Evenness ..	Even ..	Fairly uneven.	Even ..	Fairly even ..	Even ..	Fairly even ..	Even.	Even.	..
Noppiness ..	A little neppy.	Noppy ..	A little neppy.	Almost free of nep.	Practically free of nep.	Somewhat neppy.	Slightly neppy.	Practically nep free.	..
Slubbiness ..	..	..	..	..	..	..	..	..	..

#### 3. Spinning Test Details and Results:—See Table 16 on page 48.

# II. REPORT OF THE STANDARDS COMMITTEE FOR FARM WESTERNS COTTON.

## FARM WESTERNS.

## 1929-30. 1930-31. 1931-32. 1932-33. 1933-34. 1934-35. 1935-36. 1936-37.

	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..
	No. 2.	No. 2.	No. 2.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.
Class	Extra superfine	Extra superfine	Superfino	Fully good to fine	Superfine	Superfine	Fully good to fine	Superfine.
Colour	White	Creamy-white	Brownish-white	Brownish	Whitish	Creamy-white	Dull white	White.
Staple Length	1/2 inch	Full 1/2 inch	1/2 inch	1/2 inch	1/2 inch	1/2 inch	1/2 inch	13/10 inch.
Staple Strength	Good	Strong	Good	Good	Good	Fairly good	Moderate	Fair.
Regularity	Regular	Regular	Regular	Regular	Regular	Regular	Slightly irregular	Regular.
Value above or below contract rate.	Rs. 45 on	Rs. 50 on	Rs. 30 on	Rs. 25 on	Rs. 40 on	Rs. 05 on	Rs. 15 off	Rs. 30 on.
Basis	Rs. 242	Rs. 177	Rs. 152	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..
				No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.
Date of valuation	6-6-30	14-7-31	13-6-32	26-7-33	3-5-34	2-7-35	8-8-36	3-0-37.
Remarks								

Table 16.—SPINNING TEST RESULTS FOR FARM WESTERNS COTTON.

1	2	3	4	5	6	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.								TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample lbs.	Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	L.W.A.			BALISTING.			Kendama Class.	Neps per yard.	Turns per inch Actual.	Spinning Room.	Sizing Room.	Testing Room.
															Counts Actual.	Strength (lbs.)	Count-Weight Product.	Counts Actual.	Work of (inch-lbs.)	Count-Weight Product.						
753	Farm Westerns.	1929-30	14-6-30	20	10	13.0	11.1	0.6	23.1	5	190	..	4.90	17.93	10.0	83.8	1642	19.7	121.8	2309	3	2.5	17.1	90	68	70
763	Farm Westerns.	1929-30	14-6-30	24	..	..	..	..	..	44	176	..	5.95	10.73	23.5	91.8	1452	23.6	87.0	2067	4	3.0	10.0	90	63	64
1128	Farm Westerns.	1930-31	24-7-31	20	10	10.3	11.1	0.3	20.6	20	190	9450	5.20	17.93	20.0	64.0	1318	20.9	109.2	2201	4	5.5	17.3	88	75	80
1128	Farm Westerns.	1930-31	25-7-31	24	..	..	..	..	..	27	160	8200	0.19	19.73	23.0	50.5	1333	23.9	93.4	2352	6	0.6	18.8	86	76	85
1371	Farm Westerns.	1931-32	23-6-32	20	10	12.3	8.7	0.5	20.4	10	104	9500	5.44	17.93	19.0	86.0	1703	20.0	130.2	2784	3	3.0	17.4	86	60	77
1371	Farm Westerns.	1931-32	23-6-32	24	..	..	..	..	..	24	175	6500	6.41	10.73	23.0	70.7	1629	23.4	114.6	2682	4	3.0	19.3	86	72	81
1800	Farm Westerns.	1932-33	31-8-33	20	10	13.8	10.5	0.5	23.2	115	178	8800	5.03	17.98	10.8	90.0	1290	20.0	111.2	2224	4	1.5	17.2	87	69	70
1806	Farm Westerns.	1932-33	31-8-33	24	..	..	..	..	..	180	162	8000	5.95	10.73	23.8	45.3	1078	24.0	92.0	2208	4	1.8	10.0	88	70	63
2297	Farm Westerns.	1933-34	22-5-34	20	10	12.2	9.3	0.3	20.0	10	198	9750	5.93	17.98	20.2	88.2	1660	20.1	131.2	2637	3	1.2	17.3	90	68	68
2297	Farm Westerns.	1933-34	22-5-34	24	..	..	..	..	..	0	180	9300	5.33	19.73	23.5	88.8	1617	24.2	106.2	2970	4	1.5	10.1	90	68	70
2297	Farm Westerns.	1933-34	23-5-34	30	..	..	..	..	..	30	159	9500	6.02	21.80	20.1	49.3	1435	30.3	81.8	2500	5	1.5	21.1	88	68	70
2772	Farm Westerns.	1934-35	18-7-35	20	10	0.4	13.1	0.4	21.6	10	198	9750	6.10	17.98	10.0	86.0	1711	20.0	135.0	2700	3	2.2	17.0	86	72	78
2772	Farm Westerns.	1934-35	19-7-35	24	..	..	..	..	..	27	180	9800	5.44	10.73	23.8	99.0	1694	23.4	113.0	2658	4	2.5	18.8	85	78	80
2772	Farm Westerns.	1934-35	19-7-35	30	..	..	..	..	..	53	129	9700	0.80	21.80	23.7	52.2	1498	23.5	89.6	2554	5	1.8	21.0	85	77	81
3323	Farm Westerns.	1935-30	20-8-30	10	10	11.0	9.7	0.3	20.4	18	192	8500	5.05	16.97	15.0	93.8	1463	16.1	155.2	2499	3	2.0	15.2	85	74	75
3323	Farm Westerns.	1935-30	19-8-36	20A	..	..	..	..	..	21	180	9250	0.97	17.98	19.9	63.2	1317	20.4	112.0	2285	4	2.2	17.3	86	72	74
3323	Farm Westerns.	1935-36	19-8-30	20B	..	..	..	..	..	5	190	10600	0.10	19.20	20.0	73.0	1478	20.2	113.0	2296	4	1.2	18.7	86	71	74
3654	Farm Westerns.	1936-37	11-6-37	16	10	12.5	10.0	0.3	21.5	6	198	8700	5.50	15.07	15.6	113.1	1761	15.4	189.2	2914	3	0.8	15.5	90	70	69
3654	Farm Westerns.	1936-37	12-6-37	20	..	..	..	..	..	10	192	9600	4.71	17.98	19.3	88.5	1798	19.0	138.0	2922	3	0.5	17.5	91	65	72
3654	Farm Westerns.	1936-37	12-6-37	24	..	..	..	..	..	14	178	9700	5.03	19.73	23.4	65.2	1520	23.1	106.8	2497	4	0.8	19.2	90	66	74

\* Diameter of ring frame front roller—7/8". Diameter of rings—1 1/4".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 17.—KUMPTA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
759	Kumpta.	Hubli.	1929-30
1129	"	"	1930-31
1369	"	"	1931-32
1891	"	"	1932-33
2298	"	Gadag.	1933-34
2872	"	"	1934-35
3399	"	Hubli.	1935-36
3698	"	"	1936-37

## I.—SPINNING TESTS.

## 1. Treatment:—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal Cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper Feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

## 2. Spinning Master's Report:—

## (a) Cotton:—

KUMPTA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. .. Creamy.	Dullish creamy.	Dullish creamy-white.	Dullish creamy-white.	Dullish creamy-white.	Creamy-white.	Creamy-white.	White to creamy-white; dullish.	Creamy-white.
.. .. Very leafy.	Leafy.	Leafy.	Very leafy.	Very leafy.	Leafy.	Very leafy.	Leafy; slightly stained.	Leafy.
.. .. Good.	Moderately good.	..	Good.	Good.	Good smooth.	Good.	Good.	Good bodied.
neppiness A little nepped and knotted.	..	Well-ginned.	Well-ginned.	A trifle knotted.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
.. ..	Too much out and crushed besides 1.1% ginned and unginned.	A few ginned and unginned.	..	1.56% unginned and partly ginned.	..	..	..	..
.. .. Fairly clean.	Fairly clean.	Clean.	Almost clean.	Fairly leafy.	Clean.	Almost clean.	A little leafy.	Good; fairly free of neps.
.. ..	Even and practically free of nep.	Good.	Even and nep-free.	Good.	Good.	Even; nep-free.	..	..
0 flat strips 14.7 grams.	16.3 grams.	14.3 grams.	16.2 grams.	16.2 grams.	19.3 grams.	14.3 grams.	23.5 grams.	..
.. .. Licker-in No. 1 is mainly leaf.	..	..	..	Fairly well watered.	..	..	..	..

## (b) Yarn:—

KUMPTA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. .. Fairly clean.	Fairly clean.	Almost clean.	Clean.	Fairly clean.	Leafy.	Almost clean.	A little leafy.	Fairly even.
.. .. Even.	Fairly even.	Even.	Fairly even.	Fairly even in the two lower counts.	Even.	Even.	..	..
.. .. Fairly free of nep.	Slightly neppy.	A trifle neppy.	Free of nep.	A little neppy.	Almost free of nep.	Almost free of nep.	Fairly free of nep.	..
.. ..	..	..	..	A little slubby.	..	..	..	..

## 3. Spinning Test Details and Results:—See Table 17 on page 51.

## II. REPORT OF THE STANDARDS COMMITTEE FOR KUMPTA COTTON.

[illegible]

Table 17.—SPINNING TEST RESULTS FOR KUMPIA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weights of sample lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*					YARN TEST RESULTS.										TEMPERATURE HUMIDITY.		RELATIVE HUMIDITY (%).					
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R. P. M.	Spindle Speed R. P. M.	Draft.	Turns per inch.	LRA.			BALISTICO.			Keps per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.								
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of rupture (inch-lbs.)	Count-Work Product.												
760	Kumpia	1929-30	17-6-30	20	10	14.1	10.0	0.0	23.1	10	106	..	4.00	17.08	20.0	80.0	1018	111.8	2273	3	2.0	17.2	19.8	111.8	2273	3	2.0	17.2	80	08	07	25
760	Kumpia	1929-30	17-6-30	24	..	..	..	..	..	32	170	..	5.81	19.73	23.8	62.0	1400	84.8	2028	4	2.0	16.0	21.2	84.8	2028	4	2.0	16.0	90	00	07	25
1120	Kumpia	1930-31	27-7-31	24	10	14.4	10.3	0.5	23.5	24	180	9000	5.68	19.73	24.0	65.7	1677	100.0	2411	4	1.7	16.0	23.7	100.0	2411	4	1.7	16.0	85	80	83	25
1120	Kumpia	1930-31	27-7-31	30B	..	..	..	..	..	42	163	9700	7.00	23.11	20.0	47.7	1112	82.4	2308	5	3.0	22.2	20.1	82.4	2308	5	3.0	22.2	80	70	85	25
1300	Kumpia	1931-32	30-8-32	24	10	15.0	0.2	0.5	23.9	42	180	9050	6.77	19.73	22.7	67.2	1625	87.0	2284	3	1.6	19.1	23.4	87.0	2284	3	1.6	19.1	90	09	73	25
1360	Kumpia	1931-32	22-6-32	30B	..	..	..	..	..	23	153	9550	7.11	23.29	20.0	40.3	1450	81.2	2305	4	2.0	22.0	20.5	81.2	2305	4	2.0	22.0	87	70	77	25
1801	Kumpia	1932-33	30-8-33	24	10	16.0	8.0	0.5	23.6	160	178	9000	5.53	19.73	23.5	68.5	1376	94.0	2295	4	0.5	18.8	24.1	94.0	2295	4	0.5	18.8	87	70	07	25
1801	Kumpia	1932-33	31-8-33	30A	..	..	..	..	..	100	160	9000	6.84	21.86	28.0	42.3	1210	79.4	2223	5	1.0	20.0	20.1	79.4	2223	5	1.0	20.0	86	73	60	25
2208	Kumpia	1933-34	24-6-34	20	10	14.7	0.7	0.0	23.4	21	108	9050	6.81	17.08	10.8	77.1	1627	111.4	2273	4	1.2	17.1	20.4	111.4	2273	4	1.2	17.1	88	08	70	25
2208	Kumpia	1933-34	23-6-34	24	..	..	..	..	..	32	180	9560	5.32	10.73	23.4	63.1	1484	97.2	2343	5	1.8	10.0	21.1	97.2	2343	5	1.8	10.0	89	99	70	25
2208	Kumpia	1933-34	23-6-34	30A	..	..	..	..	..	73	154	9100	9.02	21.86	20.8	41.2	1228	77.2	2302	0	1.5	20.0	30.0	77.2	2302	0	1.5	20.0	80	09	70	25
2872	Kumpia	1934-35	26-8-35	20	10	10.0	13.8	0.4	23.2	20	107	9700	5.95	17.08	20.4	80.2	1820	127.2	2500	3	1.2	17.1	20.2	127.2	2500	3	1.2	17.1	86	08	71	25
2872	Kumpia	1934-35	21-9-35	21	..	..	..	..	..	18	170	9050	5.23	19.73	23.4	74.0	1753	100.0	2540	3	1.2	10.0	23.3	100.0	2540	3	1.2	10.0	86	09	72	25
3300	Kumpia	1935-36	16-10-36	20	10	9.4	10.7	0.4	19.4	21	104	9700	6.10	17.08	20.4	85.3	1710	110.0	2332	3	1.2	17.2	20.1	110.0	2332	3	1.2	17.2	80	71	60	25
3300	Kumpia	1935-36	16-10-36	24	..	..	..	..	..	10	178	9700	5.55	19.73	23.4	72.3	1692	105.2	2420	4	1.5	19.1	23.1	105.2	2420	4	1.5	19.1	87	00	60	25
3300	Kumpia	1935-36	16-10-36	30A	..	..	..	..	..	17	117	9000	6.76	21.86	20.4	52.1	1541	86.0	2408	4	1.5	21.1	23.7	86.0	2408	4	1.5	21.1	86	61	63	25
3608	Kumpia	1936-37	13-7-37	20	10	12.5	13.8	0.5	25.0	19	104	9000	6.00	17.08	19.0	80.1	1693	131.0	2040	3	1.2	17.2	19.7	131.0	2040	3	1.2	17.2	83	80	82	25
3608	Kumpia	1936-37	13-7-37	24	..	..	..	..	..	32	174	9500	5.35	10.73	21.3	62.1	1500	104.8	2520	4	1.5	16.8	21.1	104.8	2520	4	1.5	16.8	82	83	70	25
3608	Kumpia	1936-37	13-7-37	30	..	..	..	..	..	30	183	9000	6.92	21.86	30.3	45.0	1391	84.8	2595	5	1.5	20.0	30.0	84.8	2595	5	1.5	20.0	83	81	78	25

\* Diameter of ring frame front roller—f. Diameter of rings—1½. † It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

### 18.—UPLAND COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
796	Upland	Gadag	.. 1929-30	2475	Upland	Gadag	.. 1933-34
1158	"	Hubli	.. 1930-31	2829	"	"	.. 1934-35
1396	"	Gadag	.. 1931-32	3325	"	"	.. 1935-36
1884	"	"	.. 1932-33	3655	"	"	.. 1936-37

#### I. SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

(a) *Cotton* :—

		UPLAND.							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour ..	..	Creamy-white; bright.	Creamy-white.	Creamy-white.	Creamy-white.	Creamy-white.	White to creamy-white.	White to creamy-white.	White to creamy-white.
Cleanliness ..	..	Leafy ..	Leafy; slightly stained.	Somewhat leafy.	Leafy ..	Very leafy ..	Fairly clean ..	Slightly stained.	Fairly clean.
Feel ..	..	Good ..	..	Good softish ..	Softish ..	Good ..	Soft; poorish.	Good.	Good bodied.
Ginning and Neppiness.	..	A little nepped and knotted.	Well-ginned except for slight knottiness.	Well-ginned ..	Somewhat knotted in ginning.	Fairly well-ginned.	Well-ginned ..	A trifle knotted.	Well-ginned.
Seeds ..	..	A fair amount of undeveloped seed; 0.63% full clean.	0.6% ginned and unginned.	0.5% unginned.	..	..	Some seeds ..	..	..
Card Sliver ..	..	..	Almost clean ..	Clean ..	Clean ..	Leafy ..	Clean; soft ..	Clean.	Clean.
Card Web ..	..	A little cloudy and neppy.	Practically free of nep.	Good ..	Good ..	Somewhat cloudy.	Slightly neppy.	Good.	Good; nep-free.
Weight of 10 flat strips.	..	26.8 grams	24.2 grams	23.7 grams	25.7 grams	26.4 grams	24.1 grams	15.8 grams.	17.2 grams.
Remarks ..	..	..	..	..	..	..	..	..	..

(b) *Yarn* :—

		UPLAND.							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	..	Fairly leafy ..	Almost clean ..	Almost clean ..	Somewhat leafy.	Leafy ..	Clean ..	Almost clean.	Slightly leafy.
Evenness ..	..	Very neppy ..	Fairly even ..	Fairly even ..	Fairly even ..	Fairly even ..	Fairly even ..	Even.	Even.
Neppiness ..	..	Fairly even ..	A trifle neppy.	A trifle neppy.	A little neppy.	Somewhat neppy.	A trifle neppy.	Practically free of nep.	Practically free of neps.
Slubbiness ..	..	..	..	..	A trifle slubby.	..	Somewhat slubby.	..	..

3. *Spinning Test Details and Results* :—See Table 18 on page 54.



## II.—REPORT OF THE STANDARDS COMMITTEE FOR UPLAND COTTON.

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UPLAND.										
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.		
Contract valued under	F. G. M. G. Broach ..	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2, July-Aug. 1933 delivery.	F. G. M. G. Broach Hedge Contract No. 2, April-May 1935 delivery.	F. G. M. G. Broach Hedge Contract No. 2, July-Aug. 1935 delivery.	F. G. M. G. Broach Hedge Contract No. 2, July-Aug. 1936 delivery.	F. G. M. G. Broach H. C. No. 2, July-Aug. 1937 delivery.		
Class ..	.. Strict fine ..	.. Fine ..	.. Fine ..	.. Fully good to fine ..	.. Fine ..	.. Superfino ..	.. Superfine.	.. Fine.		
Colour ..	.. Bluish white ..	.. White but slightly creamy.	.. Bluish white ..	.. Whitish ..	.. Whitish ..	.. Whitish ..	.. White.	.. White.		
Staple Length ..	.. 7/8 inch ..	.. 29/32 inch ..	.. Full 3/4 inch ..	.. 11/16 inch ..	.. 13/16 inch ..	.. 3/4 inch ..	.. 11/16 inch.	.. 11/16 inch.		
Staple Strength ..	.. Good ..	.. Good ..	.. Fair ..	.. Fair ..	.. Good ..	.. Fair ..	.. Fair.	.. Weak.		
Regularity ..	.. Regular ..	.. Regular ..	.. Regular ..	.. Irregular ..	.. Irregular ..	.. Fair ..	.. Somewhat irregular.	.. Somewhat irregular.		
Value above or below contract rate ..	.. Rs. 50 on ..	.. Rs. 35 on ..	.. Rs. 20 on ..	.. Rs. 5 on ..	.. Rs. 5 off ..	.. Rs. 15 on ..	.. Rs. 7 off.	.. Rs. 5 on.		
Basis ..	.. F. G. M. G. Broach ..	.. Rs. 162 ..	.. Rs. 160 ..	.. F. G. M. G. Broach No. 2, July-Aug. 1933 delivery, Rs. 207.	.. F. G. M. G. Broach H. C. No. 2, April-May 1935 delivery, Rs. 221.	.. F. G. M. G. Broach H. C. No. 2, July-Aug. 1935 delivery, Rs. 224.	.. F. G. M. G. Broach Hedge Contract No. 2, July-Aug. 1936 delivery, Rs. 228.	.. F. G. M. G. Broach H. C. No. 2, July-Aug. 1937 delivery, Rs. 239.		
Date of Valuation ..	.. 10-7-30 ..	.. 10-8-31 ..	.. 27-6-32 ..	.. 20-7-33 ..	.. 20-8-34 ..	.. 13-8-35 ..	.. 8-8-36.	.. 3-9-37.		
Remarks ..	..	..	..	..	..	..	..	..		

Table 18.—SPINNING TEST RESULTS FOR UPLAND COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Normal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.				YARN TEST RESULTS.						TEMPERATURE (°F.).	RELATIVE HUMIDITY. (%)					
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	I.N.A.			BALLASTIC.								
															Counts Actual.	Strength (lbs.)	Count-Strength	Counts Actual.	Work of Machine (inches)			Count-Work				
796	Upland ..	1929-30	23-7-30	20	10	10.3	13.8	0.5	23.1	50	104	..	5.10	17.98	19.7	80.1	1578	19.0	128.4	2518	3	0.5	17.1	86	73	70
796	Upland ..	1929-30	24-7-30	24	..	..	..	..	..	24	180	..	6.10	19.73	23.0	58.2	1391	21.0	91.0	2181	4	11.7	18.8	86	70	72
1168	Upland ..	1930-31	17-8-31	20	10	9.2	12.3	0.3	20.9	11	100	9400	5.95	17.98	20.0	71.1	1482	20.1	122.2	2450	4	2.0	17.1	84	70	81
1168	Upland ..	1930-31	18-8-31	24	..	..	..	..	..	18	166	8900	6.13	19.73	24.1	57.5	1380	21.5	98.4	2411	5	2.7	18.0	85	77	77
1300	Upland ..	1931-32	18-7-32	20	10	10.0	13.6	0.7	22.7	114	184	9200	5.08	17.98	10.7	62.0	1221	19.0	118.2	2317	4	2.0	17.1	80	78	79
1306	Upland ..	1931-32	18-7-32	21	..	..	..	..	..	162	157	8500	5.08	10.73	24.0	43.0	1040	24.0	91.0	2253	5	2.5	10.0	86	76	76
1884	Upland ..	1932-33	19-8-33	20	10	14.4	13.8	0.0	26.0	192	185	9000	5.08	17.98	19.8	66.0	1206	19.0	109.1	2177	1	3.0	17.5	87	70	63
1884	Upland ..	1932-33	22-8-33	24	..	..	..	..	..	200	156	8500	6.10	10.73	23.0	45.4	1085	24.3	92.6	2268	5	3.5	19.2	86	69	70
2475	Upland ..	1933-34	5-9-34	20	10	13.1	14.7	0.4	26.2	31	187	9200	6.01	17.98	20.2	72.0	1473	20.1	117.2	2391	4	3.8	17.0	84	77	73
2475	Upland ..	1933-34	5-9-34	24	..	..	..	..	..	55	172	9250	6.10	10.73	24.3	54.2	1317	21.3	97.0	2357	5	4.0	19.0	83	80	72
2829	Upland ..	1934-35	27-8-35	20	10	13.1	12.9	0.0	24.8	67	170	8800	5.08	17.98	20.2	61.2	1297	20.5	120.2	2619	4	1.8	17.3	86	71	73
2829	Upland ..	1934-35	26-8-35	24	..	..	..	..	..	63	104	8550	0.28	19.73	23.8	54.3	1292	23.5	111.8	2627	5	2.0	18.7	85	70	73
3325	Upland ..	1935-36	20-8-36	20	10	8.8	10.4	0.3	18.4	21	190	9300	5.95	17.98	19.6	80.4	1576	20.0	137.8	2756	4	1.2	17.3	86	71	78
3325	Upland ..	1935-36	21-8-36	24	..	..	..	..	..	23	172	9350	6.10	19.73	23.1	62.8	1451	23.1	111.0	2833	4	1.0	19.0	85	73	70
3655	Upland ..	1936-37	17-6-37	10	9	8.0	10.6	0.4	18.9	18	210	9300	4.00	15.97	15.5	109.2	1003	15.5	211.4	3277	3	1.3	5.5	90	72	79
3655	Upland ..	1936-37	14-6-37	20	..	..	..	..	..	31	191	9500	5.83	17.08	19.4	71.8	1393	10.7	130.0	2601	3	0.9	17.0	90	66	77
3655	Upland ..	1936-37	14-6-37	24	..	..	..	..	..	41	172	9500	5.91	19.73	23.7	52.8	1231	23.9	103.0	2476	4	0.5	18.8	90	66	75

\* Diameter of ring frame front roller—7/8". Diameter of rings—1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 19.—BIJAPUR COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
750	Bijapur	Bijapur	1929-30
1156	"	"	1930-31
1397	"	"	1931-32
1892	"	"	1932-33
2474	"	"	1933-34
2842	"	"	1934-35
3324	"	"	1935-36
3652	"	"	1936-37

### I. SPINNING TESTS.

#### 1. Treatment :—

(a) *Blow-room*.—Upto 1933-34.—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :—

	BIJAPUR.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. ..	Creamy	Creamy-white	Dull creamy	Dullish creamy-white.	Creamy-white.	Creamy-white.	Creamy.	Creamy.
Cleanliness ..	Very leafy	Very leafy	Leafy ; some-what stained.	..	Very leafy	Very leafy	Leafy.	Leafy.
Feel .. ..	Good	Full-bodied	Poorish soft	Good	Good	Poorish	Fairly good.	Good.
Ginning and neppiness.	Fairly well-ginned.	..	A good deal knotted.	Somewhat knotted.	Well-ginned.	Well-ginned	A little knotted.	Well-ginned.
Seeds .. ..	1.17% full clean and cut.	2% ginned and unginned.	0.75% ginned and unginned.	0.6% ginned and unginned.	..	..	Some seeds.	0.35 per cent.
Card Sliver ..	..	Fairly clean	A little leafy	Clean	Fairly leafy	Little leafy	Almost clean.	Leafy.
Card Web ..	..	Even and free of nep.	Fairly good	Even and nep. free.	Good	Good	Good.	Good.
Weight of 10 flat strips	14.2 grams	19.5 grams	22.1 grams	15.0 grams	21.9 grams	22.3 grams	15.4 grams.	16.1 grams
Remarks .. ..	..	Fully pressed	..	..	..	..	..	..

##### (b) Yarn :—

	BIJAPUR.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Fairly clean	Clean	Somewhat leafy.	Clean	A little leafy	Fairly clean	Almost clean.	Leafy.
Evenness ..	Even	Somewhat uneven.	Even in lower counts only.	Fairly even	Fairly even	Even	Very even.	Even.
Neppiness ..	Free of nep	Fairly free of nep.	Fairly free of nep.	Free of nep	Fairly free of nep.	Free of nep	Practically free of nep.	Slightly neppy
Slubbiness ..	..	..	..	..	..	..	..	..

#### 3. Spinning Test Details and Results :—See Table 19 on page 57.

## II.—REPORT OF THE STANDARDS COMMITTEE FOR BIJAPUR COTTON.

BIJAPUR.

		1029-30.	1030-31.	1031-32.	1032-33.	1033-34.	1034-35.	1035-36.	1036-37.
Contract valued under	..	F. G. M. G. Branch ..	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery.	F. G. M. G. Branch No. 2, April/May 1935 delivery.	F. G. M. G. Branch No. 2, July/Aug. 1935 delivery.	F. G. M. G. Branch No. 2, July/Aug. 1936 delivery.	F. G. M. G. Branch No. 2, July/Aug. 1937 delivery.
Class	..	.. Barely fine ..	.. Fino ..	.. Fully good to fine ..	.. Good ..	.. Strict fine ..	.. Fino ..	.. Fully Good to Fine ..	.. Fino ..
Colour	..	.. Reddish ..	.. Creamy ..	.. Brownish ..	.. Reddish brown ..	.. Brownish ..	.. Brownish white ..	.. Brownish ..	.. Creamy brownish ..
Staple Length	..	.. 3/4 inch ..	.. 13/16 inch ..	.. 3/4 inch ..	.. 5/8 inch ..	.. 3/4 inch ..	.. 11/16 inch ..	.. 3/4 inch ..	.. 11/16 inch ..
Staple Strength	..	.. Fair ..	.. Fair ..	.. Fair ..	.. Fair ..	.. Fair ..	.. Poor ..	.. Moderate ..	.. Weak ..
Regularity	..	.. Fair ..	.. Irregular ..	.. Regular ..	.. Irregular ..	.. Fair ..	.. Irregular ..	.. Fairly regular ..	.. Irregular ..
Value above or below contract rate	..	.. Rs. 20 on ..	.. Rs. 15 on ..	.. Rs. 3 on ..	.. Rs. 15 off ..	.. Rs. 25 off ..	.. Par ..	.. Rs. 22 off ..	.. Rs. 7 off ..
Basis	..	.. Rs. 242 ..	.. Rs. 162 ..	.. Rs. 103 ..	.. F. G. M. G. Branch No. 2, July/Aug. 1933 dely., Rs. 207. ..	.. F. G. M. G. Branch No. 2, April/May 1935 dely., Rs. 224. ..	.. F. G. M. G. Branch No. 2, July/Aug. 1935 dely., Rs. 224. ..	.. F. G. M. G. Branch No. 2, July/Aug. 1936 dely., Rs. 228. ..	.. F. G. M. G. Branch No. 2, July/Aug. 1937 delivery, Rs. 230. ..
Date of Valuation	..	.. 6-6-30 ..	.. 10-3-31 ..	.. 13-7-32 ..	.. 26-7-33 ..	.. 20-8-34 ..	.. 20-8-35 ..	.. 8-8-36 ..	.. 3-6-37. ..
Remarks	..	..	..	..	..	..	..	..	..

Table 19.—SPINNING TEST RESULTS FOR BIJAPUR COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles	Spindle Speed R.P.M.	Draft.	Turns per Inch.	LEA.			BALISTO.			Evenness Class.	Neps per yard.			Turns per Inch Actual.			
																		Counts Actual.	Work up to 100 of (inch-lb.)	Count-Work Product.							
760	Bijapur	1929-30	18-6-30	20A	10	11.5	9.0	9.0	29.7	50	186	4.81	17.08	10.5	96.5	1277	20.8	102.0	2080	4	1.5	17.0	00	94	70	Testing Room.	
766	Bijapur	1929-30	18-6-30	20C	10	..	..	..	..	35	197	5.00	20.23	10.6	70.1	1491	19.9	114.0	2209	4	1.7	19.5	02	01	70	Spinning Room.	
1150	Bijapur	1930-31	15-8-31	20A	10	12.3	11.0	0.0	22.5	91	157	5.83	17.08	10.4	53.8	1044	10.9	104.2	2074	5	2.0	17.2	89	78	70		
1160	Bijapur	1930-31	15-8-31	20C	10	..	..	..	..	80	170	5.05	20.23	20.3	59.8	1214	20.4	103.0	2101	5	1.7	10.2	80	70	81		
1307	Bijapur	1931-32	21-7-32	12	10	15.9	13.9	0.0	28.1	51	188	4.13	13.92	12.2	98.7	1204	12.0	205.4	2466	3	1.8	13.5	87	70	80		
1307	Bijapur	1931-32	10-7-32	10	10	..	..	..	..	48	176	5.22	15.97	15.8	65.7	1038	10.1	124.0	1900	4	1.5	15.4	86	70	70		
1892	Bijapur	1932-33	4-9-33	10	10	18.1	0.5	0.9	20.4	103	182	5.43	15.97	10.0	70.0	1130	16.1	126.0	2022	4	0.6	15.1	80	72	70		
1892	Bijapur	1932-33	4-9-33	20A	10	..	..	..	..	188	181	5.81	17.08	19.4	55.8	1083	19.0	102.8	2015	5	1.0	17.0	87	70	75		
2174	Bijapur	1933-34	5-9-34	10	10	13.1	13.0	0.4	24.8	18	192	5.43	15.07	15.0	92.1	1437	15.7	148.0	2324	4	1.8	15.4	86	78	78		
2174	Bijapur	1933-34	5-9-34	20A	10	..	..	..	..	57	187	5.81	17.08	10.7	64.3	1267	10.9	107.2	2133	6	1.5	17.2	84	77	73		
2312	Bijapur	1934-35	6-9-35	10	10	11.0	12.8	0.3	23.4	42	193	5.43	15.07	10.2	99.0	1094	15.0	182.4	2900	3	1.0	15.4	85	74	76		
2312	Bijapur	1934-35	10-9-35	20A	10	..	..	..	..	31	177	5.57	17.98	19.3	81.5	1573	19.2	133.8	2569	4	0.8	17.0	89	70	82		
2312	Bijapur	1934-35	18-9-35	20B	10	..	..	..	..	10	190	5.08	19.20	20.0	81.4	1012	19.0	123.4	2468	3	1.5	18.4	85	73	70		
3524	Bijapur	1935-36	10-8-36	14	10	11.9	10.9	0.3	21.5	22	198	5.55	14.98	14.7	81.1	1192	14.5	182.1	2915	3	0.8	14.0	86	72	75		
3524	Bijapur	1935-36	20-8-36	16	10	..	..	..	..	12	194	6.25	15.07	10.2	71.0	1100	10.2	145.8	2362	3	0.5	15.4	86	74	70		
3524	Bijapur	1935-36	10-8-36	20B	10	..	..	..	..	21	194	5.60	19.20	19.7	98.7	1353	20.0	110.2	2324	3	1.0	18.7	80	72	70		
3652	Bijapur	1936-37	8-6-37	11	10	13.8	10.0	0.4	23.7	0	190	5.19	14.98	14.0	94.7	1320	13.7	184.0	2521	3	1.5	14.3	91	65	08		
3652	Bijapur	1936-37	10-6-37	10	10	..	..	..	..	54	191	4.89	15.07	10.7	67.1	1121	10.0	130.6	2108	4	1.2	15.3	91	67	70		
3052	Bijapur	1936-37	10-6-37	20B	10	..	..	..	..	26	192	5.14	19.26	20.0	50.2	1158	20.7	104.8	2199	4	1.2	18.2	91	68	74		

\* Diameter of ring frame front roller—1". Diameter of rings—1 1/2".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 20.—BAGALKOTE COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
761	Bagalkote	Bagalkote	1929-30
1157	"	"	1930-31
1433	"	"	1931-32
1893	"	"	1932-33
2460	"	"	1933-34
2840	"	"	1934-35
3391	"	"	1935-36
3653	"	"	1936-37

## I. SPINNING TESTS.

## 1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust-trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

## 2. Spinning Master's Report :—

(a) *Cotton* :—

		BAGALKOTE.							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. ..	..	Creamy	Creamy	Creamy-white	Creamy	Dullish creamy	Creamy	Creamy-white	Creamy.
Cleanliness ..	..	Very leafy	Leafy ..	Leafy; slightly stained.	Somewhat stained; leafy.	Leafy ..	Leafy ..	Leafy ..	Leafy.
Feel .. ..	..	Good ..	Good ..	Good ..	Good ..	Good ..	Fairly good	Good ..	Good-bod
Ginning and neppiness ..	..	Fairly well-ginned.	..	Well-ginned	Fairly well-ginned.	..	Good deal knotted and nepped by ginning.	Well-ginned ..	..
Seeds .. ..	..	1.8% seeds	A fair amount of out seed; 1.9% ginned and unginned.	0.75% unginned.	1.2% ginned and unginned.	2.97% partly ginned seeds and kapas.	..	1.68% full clean seeds.	Ginn and unginn 0.70%
Card Sliver .. ..	..	..	Fairly clean	Almost clean	Clean ..	A little leafy	Fairly clean	A little leafy.	A little let
Card Web .. ..	..	..	Even and free of nep.	Fairly good	Even and neppiness free.	..	Somewhat neppy.	Good ..	Good; Nep-free
Weight of 10 flat strips ..	..	15.5 grams	21.2 grams	19.2 grams	19.5 grams	24.4 grams	27.9 grams	17.5 grams	14.1 gram
Remarks .. ..	..	..	A trifle knotty.	Ring frame run at unusually low speed due to excessive breakages.	..	..	..	..	..

(b) *Yarn* :—

		BAGALKOTE.							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	..	Clean ..	Slightly leafy	Fairly clean	Clean ..	Almost clean	Fairly clean	A little leafy.	Fairly leafy
Evenness .. ..	..	Fairly even	Fairly even	Unusually uneven.	Fairly even	Fairly even	Even ..	Even ..	Even.
Neppiness .. ..	..	Free of nep	Fairly free of nep.	Almost nep-free	Almost free of nep.	Almost free of nep.	Somewhat neppy.	Almost free of nep.	Almost free of nep.
Slubbiness .. ..	..	..	..	A good deal slubby.	..	..	A trifle slubby.	..	..

3. Spinning Test Details and Results :—See Table 20 on page 60.



Table 20.—SPINNING TEST RESULTS FOR BAGALKOTE COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PROPORTIONS.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (%F.).		RELATIVE HUMIDITY (%).	
				WASTE PROPORTIONS.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										Spinning Room.	Testing Room.	Spinning Room.	Testing Room.
				WASTE PROPORTIONS.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.													
				Waste Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R. P. M.	Draft.	Turns per inch.	Counts Actual.	Strength (lbs.).	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.).	Count-Work Product.	Evenness Class.	Keps per yard.	Turns per inch Actual.						
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.).	Waste Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R. P. M.	Draft.	Turns per inch.	Counts Actual.	Strength (lbs.).	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.).	Count-Work Product.	Evenness Class.	Keps per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.	Spinning Room.	Testing Room.
761	Bagalkote ..	1929-30	18-6-30	20A	10	14.5	0.3	0.0	23.0	65	186	..	5.00	17.08	19.7	69.6	1371	10.7	112.4	2214	4	1.7	17.0	00	64	79	
701	Bagalkote ..	1929-30	18-6-30	20C		..	..	..	..	35	197	..	5.10	20.23	10.7	78.4	1544	10.0	111.0	2221	1	2.0	10.4	92	01	75	
1157	Bagalkote ..	1930-31	14-8-31	20A	10	13.0	12.5	0.5	24.5	52	104	8100	6.05	17.08	19.0	57.0	1134	20.3	104.0	2123	5	2.2	17.3	85	78	80	
1157	Bagalkote ..	1930-31	14-8-31	20C		..	..	..	..	63	190	10350	0.19	20.23	20.0	66.1	1322	20.2	100.8	2157	1	2.0	19.4	87	74	70.	
1433	Bagalkote ..	1931-32	26-8-32	12		13.7	14.8	0.8	27.1	124	164	6000	4.90	11.68	12.0	50.0	679	12.1	184.8	2230	3	1.2	14.2	89	70	72	
1433	Bagalkote ..	1931-32	25-8-32	10B		..	..	..	..	150	130	6000	5.00	16.07	15.8	31.3	542	15.0	117.0	1870	0	1.5	10.3	89	71	70	
1433	Bagalkote ..	1931-32	26-8-32	20C		..	..	..	..	173	110	6300	5.81	20.23	10.2	25.8	495	18.8	95.4	1794	7	1.0	10.4	80	70	69	
1893	Bagalkote ..	1932-33	4-9-33	16A	10	13.8	11.7	0.3	24.1	55	182	6000	5.23	15.07	15.0	93.3	1455	10.0	137.2	2195	4	1.5	15.3	80	72	74	
1893	Bagalkote ..	1932-33	4-9-33	16B		..	..	..	..	18	103	8800	5.34	16.07	15.9	99.4	1555	16.0	147.1	2358	4	1.8	10.0	87	07	78	
2460	Bagalkote ..	1933-34	23-8-34	16A	10	15.0	14.0	0.3	27.1	12	169	8250	5.53	15.07	10.4	81.5	1286	16.4	139.2	2268	4	1.8	15.5	84	77	80	
2460	Bagalkote ..	1933-34	22-8-34	20A		..	..	..	..	47	175	8460	5.83	17.08	19.0	04.0	1280	19.7	100.4	2166	1	2.2	17.3	81	76	73	
2460	Bagalkote ..	1933-34	22-8-34	20B		..	..	..	..	21	188	0800	6.83	19.26	10.8	56.2	1113	19.8	112.4	2256	4	2.0	18.8	85	74	74	
2840	Bagalkote ..	1934-35	3-9-35	16A	10	11.2	15.2	0.3	24.9	18	193	8500	5.55	15.97	16.7	110.2	1840	10.4	192.8	3162	3	4.0	15.4	84	78	78	
2840	Bagalkote ..	1934-35	3-9-35	20A		..	..	..	..	10	180	8550	5.93	17.08	20.4	70.7	1631	20.4	190.4	2660	4	3.5	17.2	85	77	72	
2840	Bagalkote ..	1934-35	3-9-35	20B		..	..	..	..	5	180	0900	5.93	19.26	20.0	90.0	1800	20.1	133.0	2685	4	2.8	18.5	85	74	71	
2840	Bagalkote ..	1934-35	17-9-35	24		..	..	..	..	30	170	0350	7.22	10.73	25.5	50.0	1443	25.1	07.0	2404	4	3.2	10.0	84	70	70	
3391	Bagalkote ..	1935-36	7-10-36	10	10	14.5	12.2	0.4	25.2	12	104	8900	5.43	15.07	10.1	85.7	1390	16.4	138.2	2260	3	1.2	15.0	88	72	70	
3391	Bagalkote ..	1935-36	5-10-36	20A		..	..	..	..	10	170	8500	5.05	17.08	20.1	61.2	1230	20.6	108.4	2283	4	1.2	17.2	89	70	71	
3391	Bagalkote ..	1935-36	6-10-36	20B		..	..	..	..	42	104	10200	0.07	10.26	20.1	72.2	1451	20.0	110.0	2278	4	1.0	18.5	00	70	72	
3653	Bagalkote ..	1936-37	11-6-37	14	10	14.4	8.1	0.2	21.5	0	203	8350	5.21	11.09	11.0	101.5	1163	13.7	189.2	2592	3	0.8	11.5	01	69	75	
3653	Bagalkote ..	1936-37	10-6-37	16		..	..	..	..	12	191	8350	4.77	15.07	15.0	88.2	1102	15.0	113.4	2280	3	0.5	15.0	02	68	73	
3653	Bagalkote ..	1936-37	11-6-37	20		..	..	..	..	10	190	10300	0.14	19.20	20.3	68.3	1386	20.0	111.8	2230	4	0.2	18.5	01	69	78	

\* Diameter of ring-frame front roller—7/8". Diameter of ring—1-5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.



## 21.—CAMBODIA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
762	Cambodia.	Coimbatore.	1929-30.
1159	"	Tirupur.	1930-31.
1398	"	"	1931-32.
1894	"	"	1932-33.
2436	"	"	1933-34.
2839	"	"	1934-35.
3390	"	"	1935-36.
3701	"	"	1936-37.

### I.—SPINNING TESTS.

#### 1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal Cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper Feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :—

CAMBODIA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. ..	Creamy-white to creamy; bright.	Creamy-white; bright.	Creamy-white; bright.	Creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; bright.	Creamy-white; bright.
Cleanliness .. ..	Clean.	Fairly clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean; a stained.
Feel .. ..	Good-bodied.	Very good.	Good.	Good-bodied.	Good.	Softish smooth.	Good-bodied.	..
Ginning and Neppiness.	Nepped and knotted.	Well-ginned.	Fairly well-ginned.	Fairly well-ginned.	A little knotted in ginning.	A little knotted in ginning.	Fairly well-ginned.	A little ted.
Seeds .. ..	..	..	..	..	1% full seeds.	Some unginned.	..	A few f ginned.
Card Sliver .. ..	..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.
Card Web .. ..	A little neppy.	A trifle neppy.	Fairly good.	Fairly good.	Even and somewhat neppy.	Fairly good.	A little neppy.	Neppy.
Weight of 10 flat strips.	22.1 grams.	25.3 grams.	22.2 grams.	27.3 grams.	28.8 grams.	31.0 grams.	21.2 grams.	26.0 ..
Remarks .. ..	..	..	..	..	..	..	..	..

##### (b) Yarn :—

CAMBODIA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness .. ..	Clean ..	Clean ..	Clean ..	Clean ..	A little leafy ..	Clean ..	Almost clean.	Fairly
Evenness .. ..	Fairly even ..	Even ..	Even ..	Fairly even ..	Fairly even ..	Even ..	Even in the 20's only.	Fairly
Neppiness .. ..	Fairly neppy ..	A little neppy ..	A little neppy ..	Somewhat neppy.	Somewhat neppy.	Somewhat neppy.	Fairly neppy.	Neppy.
Slabbiness .. ..	..	..	..	..	..	..	..	A little slubby

#### 3. Spinning Test Details and Results :—See Table 21 on page 63.

# II.—REPORT OF THE STANDARDS COMMITTEE FOR CAMBODIA COTTON.

CAMBODIA.									
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under .. ..	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	
	No. 2.	No. 2.	No. 2.	No. 2, July/Aug.	No. 2.	Hedge Contract No. 2, July/Aug. 1935 delivery.	Hedge Contract No. 2, April/May 1937 delivery.	H. C. No. 2, July/Aug. 1937 delivery.	
Class .. ..	..	Fine.	Superfine.	Fine to superfine.	Barely fully good.	Strict Fine.	Fine.	Fine.	
Colour .. ..	..	Creamy.	Creamy.	Creamy-white.	Dull creamy.	Creamy-white.	Creamy.	Creamy.	
Staple Length .. ..	..	31/32 inch.	One inch.	31/32 inch.	15/16 inch.	15/16 inch.	15/16 inch.	29/32 inch.	
Staple Strength .. ..	..	Good.	Good.	Good.	Good.	Fair.	Fair.	Fair.	
Regularity .. ..	..	Regular.	Regular.	Regular.	Slightly irregular.	Fair.	Moderately regular.	Fair.	
Value above or below contract rate..	..	Rs. 90 on.	Rs. 60 on.	Rs. 65 on.	Rs. 65 on.	Rs. 75 on.	Rs. 35 on.	Rs. 85 on.	
Basis .. ..	..	Rs. 242.	Rs. 163.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	
	..	..	..	No. 2, July/Aug. 1933 delivery, Rs. 207.	July/Aug. 1934 delivery, Rs. 221.	Hedge Contract No. 2, July/Aug. 1935 delivery, Rs. 224.	Hedge Contract No. 2, April/May 1937 delivery, Rs. 221.	H. C. No. 2, July/August delivery, Rs. 222.	
Date of Valuation .. ..	..	10-8-31.	13-7-32.	26-7-33.	31-7-34.	20-8-35.	28-9-36.	30-8-37.	
Remarks .. ..	..	..	..	..	..	..	..	..	

Table 21—SPINNING TEST RESULTS FOR CAMBODIA COTTON.

63

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R. P. M.	Spindle Speed R. P. M.	Draft.	Turns per Inch.	I.M.A.			Diameter.			Reverness Class.			Neps per Yard.	Turns per Inch Actual.	Spinning Room.	Testing Room.
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.							
702	Cambodia ..	1929-30	10-6-30	24	10	6.0	11.3	0.0	10.7	10	175	..	5.05	19.73	23.6	64.8	1529	23.0	102.4	2417	4	5.6	19.0	01	74		
702	Cambodia ..	1929-30	20-6-30	30A		..	..	..	..	30	100	..	7.50	21.80	30.0	40.4	1392	30.0	68.0	2058	5	5.7	21.1	89	76		
1150	Cambodia ..	1930-31	18-8-31	24	10	5.8	12.0	0.5	18.0	31	180	9700	5.91	19.73	23.3	73.9	1722	23.3	118.8	2708	3	3.5	18.8	94	82		
1150	Cambodia ..	1930-31	18-8-31	30B		..	..	..	..	22	160	9709	7.30	23.11	30.1	53.6	1013	29.5	90.4	2697	4	4.7	22.1	94	80		
1309	Cambodia ..	1931-32	20-7-32	24	10	6.0	14.7	0.4	19.8	20	178	9600	6.70	19.73	23.5	63.0	1612	23.5	113.0	2078	3	2.8	10.2	86	78		
1398	Cambodia ..	1931-32	20-7-32	30A		..	..	..	..	26	158	9650	7.22	21.80	20.5	51.4	1510	20.5	80.6	2555	4	3.5	21.4	80	82		
1801	Cambodia ..	1932-33	30-8-33	24	10	6.6	13.8	0.4	18.9	55	178	9600	5.63	19.73	23.0	65.6	1518	24.2	110.0	2892	4	3.5	19.1	87	80		
1801	Cambodia ..	1932-33	30-8-33	30A		..	..	..	..	70	102	9700	7.03	21.80	20.9	45.2	1351	30.1	82.2	2474	5	3.8	20.0	88	68		
2136	Cambodia ..	1933-34	0-8-34	20	10	7.6	14.0	0.4	21.3	10	107	9550	5.81	17.08	20.0	83.0	1072	20.0	133.2	2064	3	5.2	17.3	84	82		
2136	Cambodia ..	1933-34	9-8-34	30A		..	..	..	..	43	102	9300	0.71	21.80	30.8	40.4	1420	30.7	83.0	2548	5	4.2	21.4	84	82		
2150	Cambodia ..	1933-34	9-8-34	34		..	..	..	..	48	140	9050	7.43	23.20	33.7	39.0	1335	33.7	76.0	2528	0	4.6	22.0	84	82		
2830	Cambodia ..	1934-35	4-9-35	20	10	6.0	14.8	0.3	19.2	5	107	9700	0.07	17.08	20.2	61.2	1842	20.6	134.4	2700	3	3.8	17.1	85	72		
2830	Cambodia ..	1934-35	4-9-35	30A		..	..	..	..	13	138	9700	0.28	21.86	20.8	54.5	1624	20.7	88.0	2631	4	3.5	21.1	86	74		
2830	Cambodia ..	1934-35	5-9-35	34		..	..	..	..	12	151	9700	7.14	23.20	33.2	47.1	1504	33.5	80.8	2707	5	3.5	22.0	86	76		
3300	Cambodia ..	1935-36	5-10-36	20	10	5.6	12.1	0.3	17.2	0	100	9550	0.07	17.08	20.0	60.2	1804	20.0	133.4	2608	3	3.6	17.3	89	72		
3300	Cambodia ..	1935-36	6-10-36	30A		..	..	..	..	13	100	9100	0.63	21.80	20.3	57.0	1070	29.5	90.0	2505	5	3.2	20.9	89	72		
3300	Cambodia ..	1935-36	7-10-36	34		..	..	..	..	12	140	9400	7.57	23.20	33.2	40.0	1527	32.7	77.2	2524	5	3.8	22.2	90	72		
3791	Cambodia ..	1936-37	15-7-37	20	10	5.7	12.8	0.5	18.1	21	210	10250	6.28	17.08	20.2	62.0	1858	20.0	131.4	2740	3	4.2	17.1	85	78		
3791	Cambodia ..	1936-37	17-7-37	30A		..	..	..	..	30	174	10300	6.60	21.80	30.8	51.8	1089	30.5	87.6	2672	5	4.0	20.7	87	78		
3791	Cambodia ..	1936-37	19-7-37	34		..	..	..	..	21	148	9900	7.13	23.20	31.4	46.2	1589	34.3	80.8	2771	0	4.8	22.1	86	82		

\* Diameter of ring frame front roller—7/8". Diameter of rings—1-5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 22.—TINNEVELLY COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
797	Tinnevelly.	Tuticorin.	1929-30
1162	"	"	1930-31
1400	"	"	1931-32
1883	"	"	1932-33
2461	"	"	1933-34
2841	"	"	1934-35
3392	"	Virudanagar.	1935-36
3699	"	"	1936-37

### I. SPINNING TESTS.

#### 1. Treatment:—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report:—

##### (a) Cotton:—

	TINNEVELLY.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37
Colour .. ..	Creamy-white, fairly bright.	Creamy-white.	White to creamy-white; brightish.	White to creamy-white; bright.	Creamy-white, bright.	White to creamy-white; bright.	White to creamy-white.	Cream white.
Cleanliness ..	Fairly clean; a little stained.	Fairly clean; occasional spots of stain.	Fairly clean.	Clean.	Fairly clean.	Fairly clean.	Somewhat stained; a little leafy.	Clean.
Feel .. ..	Good soft.	Soft but good.	Good.	Good.	Smooth and bodied.	Good.	Good-bodied.	Good.
Ginning and neppiness ..	Fairly knotted and nepped.	Fairly well-ginned.	Fairly well-ginned.	Well-ginned.	Slightly knotted.	Well-ginned.	A little knotted.	Knotted.
Seeds .. ..	0.75% fully clean.	..	..	..	..	..	..	Some.
Card sliver .. ..	..	Practically clean.	Almost clean.	Clean.	Fairly clean.	Clean.	Almost clean.	Good.
Card web .. ..	Cloudy and neppy.	Even and free of nep.	Almost free.	Good.	A little neppy.	Good.	Good.	Good.
Weight of 10 flat strips ..	23.2 grams.	19.0 grams.	20.6 grams.	22.4 grams.	27.2 grams.	26.1 grams.	16.7 grams.	20.6 grams.
Remarks .. ..	..	..	..	..	..	..	..	..

##### (b) Yarn:—

	TINNEVELLY.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness .. ..	Leafy.	A trifle leafy.	Clean.	Clean.	Almost clean.	Fairly clean.	Fairly clean.	A little leafy.
Evenness .. ..	Fairly even.	Fairly uneven.	Fairly even.	Fairly even.	Fairly even.	Even.	Even.	Even.
Neppiness .. ..	Very neppy.	Neppy.	Free of nep.	Free of nep.	Fairly neppy.	Fairly free of nep.	A little neppy.	Neppy.
Slubbiness .. ..	..	..	..	..	..	Somewhat slubby.	..	..

#### 3. Spinning Test Details and Results:—See Table 22 on page 66.

# IL REPORT OF THE STANDARDS COMMITTEE FOR TINNEVELLY COTTON.

	1927-8	1928-9	1929-30	1930-1	1931-2	1932-3	1933-4	1934-5	1935-6	1936-7	1937-8	1938-9	1939-40	1940-1	1941-2	1942-3	1943-4	1944-5	1945-6	1946-7	1947-8	1948-9	1949-50	1950-1	1951-2	1952-3	1953-4	1954-5	1955-6	1956-7	1957-8	1958-9	1959-0	1960-1	1961-2	1962-3	1963-4	1964-5	1965-6	1966-7	1967-8	1968-9	1969-0	1970-1	1971-2	1972-3	1973-4	1974-5	1975-6	1976-7	1977-8	1978-9	1979-0	1980-1	1981-2	1982-3	1983-4	1984-5	1985-6	1986-7	1987-8	1988-9	1989-0	1990-1	1991-2	1992-3	1993-4	1994-5	1995-6	1996-7	1997-8	1998-9	1999-0	2000-1	2001-2	2002-3	2003-4	2004-5	2005-6	2006-7	2007-8	2008-9	2009-0	2010-1	2011-2	2012-3	2013-4	2014-5	2015-6	2016-7	2017-8	2018-9	2019-0	2020-1	2021-2	2022-3	2023-4	2024-5	2025-6	2026-7	2027-8	2028-9	2029-0	2030-1	2031-2	2032-3	2033-4	2034-5	2035-6	2036-7	2037-8	2038-9	2039-0	2040-1	2041-2	2042-3	2043-4	2044-5	2045-6	2046-7	2047-8	2048-9	2049-0	2050-1	2051-2	2052-3	2053-4	2054-5	2055-6	2056-7	2057-8	2058-9	2059-0	2060-1	2061-2	2062-3	2063-4	2064-5	2065-6	2066-7	2067-8	2068-9	2069-0	2070-1	2071-2	2072-3	2073-4	2074-5	2075-6	2076-7	2077-8	2078-9	2079-0	2080-1	2081-2	2082-3	2083-4	2084-5	2085-6	2086-7	2087-8	2088-9	2089-0	2090-1	2091-2	2092-3	2093-4	2094-5	2095-6	2096-7	2097-8	2098-9	2099-0	2100-1	2101-2	2102-3	2103-4	2104-5	2105-6	2106-7	2107-8	2108-9	2109-0	2110-1	2111-2	2112-3	2113-4	2114-5	2115-6	2116-7	2117-8	2118-9	2119-0	2120-1	2121-2	2122-3	2123-4	2124-5	2125-6	2126-7	2127-8	2128-9	2129-0	2130-1	2131-2	2132-3	2133-4	2134-5	2135-6	2136-7	2137-8	2138-9	2139-0	2140-1	2141-2	2142-3	2143-4	2144-5	2145-6	2146-7	2147-8	2148-9	2149-0	2150-1	2151-2	2152-3	2153-4	2154-5	2155-6	2156-7	2157-8	2158-9	2159-0	2160-1	2161-2	2162-3	2163-4	2164-5	2165-6	2166-7	2167-8	2168-9	2169-0	2170-1	2171-2	2172-3	2173-4	2174-5	2175-6	2176-7	2177-8	2178-9	2179-0	2180-1	2181-2	2182-3	2183-4	2184-5	2185-6	2186-7	2187-8	2188-9	2189-0	2190-1	2191-2	2192-3	2193-4	2194-5	2195-6	2196-7	2197-8	2198-9	2199-0	2200-1	2201-2	2202-3	2203-4	2204-5	2205-6	2206-7	2207-8	2208-9	2209-0	2210-1	2211-2	2212-3	2213-4	2214-5	2215-6	2216-7	2217-8	2218-9	2219-0	2220-1	2221-2	2222-3	2223-4	2224-5	2225-6	2226-7	2227-8	2228-9	2229-0	2230-1	2231-2	2232-3	2233-4	2234-5	2235-6	2236-7	2237-8	2238-9	2239-0	2240-1	2241-2	2242-3	2243-4	2244-5	2245-6	2246-7	2247-8	2248-9	2249-0	2250-1	2251-2	2252-3	2253-4	2254-5	2255-6	2256-7	2257-8	2258-9	2259-0	2260-1	2261-2	2262-3	2263-4	2264-5	2265-6	2266-7	2267-8	2268-9	2269-0	2270-1	2271-2	2272-3	2273-4	2274-5	2275-6	2276-7	2277-8	2278-9	2279-0	2280-1	2281-2	2282-3	2283-4	2284-5	2285-6	2286-7	2287-8	2288-9	2289-0	2290-1	2291-2	2292-3	2293-4	2294-5	2295-6	2296-7	2297-8	2298-9	2299-0	2300-1	2301-2	2302-3	2303-4	2304-5	2305-6	2306-7	2307-8	2308-9	2309-0	2310-1	2311-2	2312-3	2313-4	2314-5	2315-6	2316-7	2317-8	2318-9	2319-0	2320-1	2321-2	2322-3	2323-4	2324-5	2325-6	2326-7	2327-8	2328-9	2329-0	2330-1	2331-2	2332-3	2333-4	2334-5	2335-6	2336-7	2337-8	2338-9	2339-0	2340-1	2341-2	2342-3	2343-4	2344-5	2345-6	2346-7	2347-8	2348-9	2349-0	2350-1	2351-2	2352-3	2353-4	2354-5	2355-6	2356-7	2357-8	2358-9	2359-0	2360-1	2361-2	2362-3	2363-4	2364-5	2365-6	2366-7	2367-8	2368-9	2369-0	2370-1	2371-2	2372-3	2373-4	2374-5	2375-6	2376-7	2377-8	2378-9	2379-0	2380-1	2381-2	2382-3	2383-4	2384-5	2385-6	2386-7	2387-8	2388-9	2389-0	2390-1	2391-2	2392-3	2393-4	2394-5	2395-6	2396-7	2397-8	2398-9	2399-0	2400-1	2401-2	2402-3	2403-4	2404-5	2405-6	2406-7	2407-8	2408-9	2409-0	2410-1	2411-2	2412-3	2413-4	2414-5	2415-6	2416-7	2417-8	2418-9	2419-0	2420-1	2421-2	2422-3	2423-4	2424-5	2425-6	2426-7	2427-8	2428-9	2429-0	2430-1	2431-2	2432-3	2433-4	2434-5	2435-6	2436-7	2437-8	2438-9	2439-0	2440-1	2441-2	2442-3	2443-4	2444-5	2445-6	2446-7	2447-8	2448-9	2449-0	2450-1	2451-2	2452-3	2453-4	2454-5	2455-6	2456-7	2457-8	2458-9	2459-0	2460-1	2461-2	2462-3	2463-4	2464-5	2465-6	2466-7	2467-8	2468-9	2469-0	2470-1	2471-2	2472-3	2473-4	2474-5	2475-6	2476-7	2477-8	2478-9	2479-0	2480-1	2481-2	2482-3	2483-4	2484-5	2485-6	2486-7	2487-8	2488-9	2489-0	2490-1	2491-2	2492-3	2493-4	2494-5	2495-6	2496-7	2497-8	2498-9	2499-0	2500-1	2501-2	2502-3	2503-4	2504-5	2505-6	2506-7	2507-8	2508-9	2509-0	2510-1	2511-2	2512-3	2513-4	2514-5	2515-6	2516-7	2517-8	2518-9	2519-0	2520-1	2521-2	2522-3	2523-4	2524-5	2525-6	2526-7	2527-8	2528-9	2529-0	2530-1	2531-2	2532-3	2533-4	2534-5	2535-6	2536-7	2537-8	2538-9	2539-0	2540-1	2541-2	2542-3	2543-4	2544-5	2545-6	2546-7	2547-8	2548-9	2549-0	2550-1	2551-2	2552-3	2553-4	2554-5	2555-6	2556-7	2557-8	2558-9	2559-0	2560-1	2561-2	2562-3	2563-4	2564-5	2565-6	2566-7	2567-8	2568-9	2569-0	2570-1	2571-2	2572-3	2573-4	2574-5	2575-6	2576-7	2577-8	2578-9	2579-0	2580-1	2581-2	2582-3	2583-4	2584-5	2585-6	2586-7	2587-8	2588-9	2589-0	2590-1	2591-2	2592-3	2593-4	2594-5	2595-6	2596-7	2597-8	2598-9	2599-0	2600-1	2601-2	2602-3	2603-4	2604-5	2605-6	2606-7	2607-8	2608-9	2609-0	2610-1	2611-2	2612-3	2613-4	2614-5	2615-6	2616-7	2617-8	2618-9	2619-0	2620-1	2621-2	2622-3	2623-4	2624-5	2625-6	2626-7	2627-8	2628-9	2629-0	2630-1	2631-2	2632-3	2633-4	2634-5	2635-6	2636-7	2637-8	2638-9	2639-0	2640-1	2641-2	2642-3	2643-4	2644-5	2645-6	2646-7	2647-8	2648-9	2649-0	2650-1	2651-2	2652-3	2653-4	2654-5	2655-6	2656-7	2657-8	2658-9	2659-0	2660-1	2661-2	2662-3	2663-4	2664-5	2665-6	2666-7	2667-8	2668-9	2669-0	2670-1	2671-2	2672-3	2673-4	2674-5	2675-6	2676-7	2677-8	2678-9	2679-0	2680-1	2681-2	2682-3	2683-4	2684-5	2685-6	2686-7	2687-8	2688-9	2689-0	2690-1	2691-2	2692-3	2693-4	2694-5	2695-6	2696-7	2697-8	2698-9	2699-0	2700-1	2701-2	2702-3	2703-4	2704-5	2705-6	2706-7	2707-8	2708-9	2709-0	2710-1	2711-2	2712-3	2713-4	2714-5	2715-6	2716-7	2717-8	2718-9	2719-0	2720-1	2721-2	2722-3	2723-4	2724-5	2725-6	2726-7	2727-8	2728-9	2729-0	2730-1	2731-2	2732-3	2733-4	2734-5	2735-6	2736-7	2737-8	2738-9	2739-0	2740-1	2741-2	2742-3	2743-4	2744-5	2745-6	2746-7	2747-8	2748-9	2749-0	2750-1	2751-2	2752-3	2753-4	2754-5	2755-6	2756-7	2757-8	2758-9	2759-0	2760-1	2761-2	2762-3	2763-4	2764-5	2765-6	2766-7	2767-8	2768-9	2769-0	2770-1	2771-2	2772-3	2773-4	2774-5	2775-6	2776-7	2777-8	2778-9	2779-0	2780-1	2781-2	2782-3	2783-4	2784-5	2785-6	2786-7	2787-8	2788-9	2789-0	2790-1	2791-2	2792-3	2793-4	2794-5	2795-6	2796-7	2797-8	2798-9	2799-0	2800-1	2801-2	2802-3	2803-4	2804-5	2805-6	2806-7	2807-8	2808-9	2809-0	2810-1	2811-2	2812-3	2813-4	2814-5	2815-6	2816-7	2817-8	2818-9	2819-0	2820-1	2821-2	2822-3	2823-4	2824-5	2825-6	2826-7	2827-8	2828-9	2829-0	2830-1	2831-2	2832-3	2833-4	2834-5	2835-6	2836-7	2837-8	2838-9	2839-0	2840-1	2841-2	2842-3	2843-4	2844-5	2845-6	2846-7	2847-8	2848-9	2849-0	2850-1	2851-2	2852-3	2853-4	2854-5	2855-6	2856-7	2857-8	2858-9	2859-0	2860-1	2861-2	2862-3	2863-4	2864-5	2865-6	2866-7	2867-8	2868-9	2869-0	2870-1	2871-2	2872-3	2873-4	2874-5	2875-6	2876-7	2877-8	2878-9	2879-0	2880-1	2881-2	2882-3	2883-4	2884-5	2885-6	2886-7	2887-8	2888-9	2889-0	2890-1	2891-2	2892-3	2893-4	2894-5	2895-6	2896-7	2897-8	2898-9	2899-0	2900-1	2901-2	2902-3	2903-4	2904-5	2905-6	2906-7	2907-8	2908-9	2909-0	2910-1	2911-2	2912-3	2913-4	2914-5	2915-6	2916-7	2917-8	2918-9	2919-0	2920-1	2921-2	2922-3	2923-4	2924-5	2925-6	2926-7	2927-8	2928-9	2929-0	2930-1	2931-2	2932-3	2933-4	2934-5	2935-6	2936-7	2937-8	2938-9	2939-0	2940-1	2941-2	2942-3	2943-4	2944-5	2945-6	2946-7	2947-8	2948-9	2949-0	2950-1	2951-2	2952-3	2953-4	2954-5	2955-6	2956-7	2957-8	2958-9	2959-0	2960-1	2961-2	2962-3	2963-4	2964-5	2965-6	2966-7	2967-8	2968-9	2969-0	2970-1	2971-2	2972-3	2973-4	2974-5	2975-6	2976-7	2977-8	2978-9	2979-0	2980-1	2981-2	2982-3	2983-4	2984-5	2985-6	2986-7	2987-8	2988-9	2989-0	2990-1	2991-2	2992-3	2993-4	2994-5	2995-6	2996-7	2997-8	2998-9	2999-0	3000-1	3001-2	3002-3	3003-4	3004-5	3005-6	3006-7	3007-8	3008-9	3009-0	3010-1	3011-2	3012-3	3013-4	3014-5	3015-6	3016-7	3017-8	3018-9	3019-0	3020-1	3021-2	3022-3	3023-4	3024-5	3025-6	3026-7	3027-8	3028-9	3029-0	3030-1	3031-2	3032-3	3033-4	3034-5	3035-6	3036-7	3037-8	3038-9	3039-0	3040-1	3041-2	3042-3	3043-4	3044-5	3045-6	3046-7	3047-8	3048-9	3049-0	3050-1	3051-2</
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Table 22.—SPINNING TEST RESULTS FOR TINNEVELLY COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	LFL.			BALTIMORE.			Evenness Class.	Keps per yard.	Turns per inch Actual.			Spinning Room.	Spinning Room.
															Counts Actual.	Strength (lbs.).	Count-Strand.	Counts Actual.	Work of Rupture (inch-lb.).	Count-Work Product.							
707	Tinnevely ..	1929-30	24-7-30	20A	10	8.0	12.4	0.4	19.8	36	176	..	5.21	17.08	19.5	75.5	1472	19.7	132.8	2419	4	14.6	17.1	80	76	25	78
797	Tinnevely ..	1929-30	24-7-30	20C	10	..	..	..	..	30	192	..	5.21	20.23	10.5	83.1	1020	10.7	123.2	2427	4	13.0	10.2	87	71	26	75
1162	Tinnevely ..	1930-31	2-8-31	10	10	0.4	10.3	0.0	10.0	109	152	7380	5.05	15.07	15.0	53.9	841	15.0	127.8	1994	4	6.2	15.0	85	75	27	80
1400	Tinnevely ..	1931-32	21-7-32	12	10	5.0	11.7	0.0	17.3	100	188	7280	5.00	13.92	12.4	84.4	1610	12.2	200.2	2442	4	0.8	13.3	82	70	28	80
1400	Tinnevely ..	1931-32	21-7-32	10	10	..	..	..	..	104	192	7300	5.35	15.07	15.0	63.0	983	15.5	147.2	2392	4	1.2	15.3	83	74	29	85
1882	Tinnevely ..	1932-33	18-8-33	12	10	6.7	11.4	0.3	17.6	15	198	7050	5.00	13.92	12.1	105.8	1280	12.3	200.8	2514	3	1.0	13.4	87	60	30	70
1883	Tinnevely ..	1932-33	18-8-33	10	10	..	..	..	..	30	180	8000	5.11	15.07	15.4	78.4	1207	15.8	170.6	2680	4	1.2	15.4	80	70	31	72
2461	Tinnevely ..	1933-34	22-8-34	16	10	6.6	13.7	0.2	19.5	0	188	8250	5.67	15.37	16.3	82.3	1341	16.1	155.6	2505	4	5.5	15.4	84	77	32	80
2461	Tinnevely ..	1933-34	22-8-34	20A	10	..	..	..	..	36	175	8450	5.05	17.08	20.1	56.0	1144	20.2	115.2	2327	4	4.0	17.3	84	77	33	78
2461	Tinnevely ..	1933-34	22-8-34	20B	10	..	..	..	..	10	188	9600	5.83	10.26	16.4	75.2	1459	10.5	124.4	2420	4	4.8	18.6	85	74	34	74
2841	Tinnevely ..	1934-35	5-9-35	16	10	5.3	13.1	0.4	18.0	67	194	8000	5.32	15.67	16.3	71.4	1164	10.0	148.6	2378	3	1.5	15.4	85	76	35	73
2841	Tinnevely ..	1934-35	9-9-35	20A	10	..	..	..	..	62	176	8750	5.83	17.08	20.2	48.0	982	20.1	111.2	2235	4	1.2	17.2	80	70	36	76
2841	Tinnevely ..	1934-35	9-9-35	20B	10	..	..	..	..	88	185	9050	5.83	10.20	20.4	61.8	1201	20.3	116.0	2267	4	1.5	18.0	80	71	37	82
3392	Tinnevely ..	1935-36	7-10-36	10	10	6.2	10.5	0.2	19.2	0	195	8800	5.54	15.37	15.0	103.0	1010	15.3	198.4	2030	3	2.8	15.2	80	72	38	70
3392	Tinnevely ..	1935-36	8-10-36	20A	10	..	..	..	..	10	181	8950	5.05	17.08	10.0	78.9	1510	19.8	128.2	2538	3	3.2	17.3	89	69	39	70
3699	Tinnevely ..	1936-37	21-7-37	14	10	7.0	10.7	0.2	22.7	73	204	8400	1.24	14.08	14.7	60.7	1466	14.7	194.4	2358	4	4.2	14.4	85	78	40	80
3699	Tinnevely ..	1936-37	15-7-37	16	10	..	..	..	..	0	196	8700	5.07	15.97	10.3	70.0	1294	10.5	168.0	2307	3	4.2	15.2	84	82	41	80
3699	Tinnevely ..	1936-37	14-7-37	20	10	..	..	..	..	21	195	9500	5.07	17.08	10.8	64.0	1270	10.4	126.4	2452	4	4.8	17.4	83	83	42	78

\* Diameter of ring frame front roller—1". Diameter of rings—1 1/2".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

### 23.—KARUNGANNI COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
763	Karunganni.	Tuticorin.	1929-30
1160	"	Virudanagar.	1930-31
1399	"	Tuticorin.	1931-32
1895	"	"	1932-33
2476	"	Tirupur.	1933-34
2843	"	Tuticorin.	1934-35
3393	"	Virudanagar.	1935-36
3700	"	Tuticorin.	1936-37

#### I.—SPINNING TESTS.

##### 1. Treatment :—

- (a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutche (3 times).  
1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once) Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter-Rover and spun from single hank roving on Ring Frame No. 1.  
1934-35 onwards :—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

###### (a) Cotton :—

KARUNGANNI								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. ..	Creamy white; bright.	Creamy white; bright.	Creamy white; brightish.	White to creamy-white; bright.	White to creamy-white; brightish.	White to creamy-white; bright.	White to creamy-white; bright.	Creamy-white; bright.
Cleanliness ..	Clean.	Fairly clean.	Almost clean.	Clean.	Fairly clean.	Fairly clean.	Clean: a little stained.	Fairly clean.
Feel .. ..	Good soft.	Good.	Good.	Good-bodied.	Good soft.	Good smooth.	Good smooth.	Good smooth.
Ginning and nep-piness.	Badly strung and nepped.	Well-ginned.	Well-ginned apart from some knot-tiness.	Well-ginned.	Slightly knotted in ginning.	Fairly well-ginned.	Well-ginned.	A little knotted.
Seeds .. ..	..	..	..	..	..	..	..	..
Card Sliver ..	..	Almost clean.	Clean.	Clean.	Fairly clean.	Almost clean.	Fairly clean.	Clean.
Card Web ..	Fairly neppy.	Practically free of nep.	Fairly good.	Good.	Somewhat neppy.	Good.	Good.	Noppy.
Weight of 10 flat strips.	19.8 grams.	21.7 grams.	20.7 grams.	19.6 grams.	26.3 grams.	28.0 grams.	15.3 grams.	33.6 grams.
Remarks .. ..	..	..	..	..	..	..	..	..

###### (b) Yarn :—

KARUNGANNI								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936
Cleanliness ..	Fairly clean.	Practically clean.	Clean.	Clean.	Fairly clean.	Clean.	Almost clean.	A little
Evenness ..	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Even.	Fairly even.	Even.	Even.
Nopiness ..	Neppey.	Somewhat neppy.	Somewhat neppy.	Free of nep.	Somewhat neppy.	Fairly neppy.	Fairly neppy.	Neppey.
Slabbiness ..	..	..	..	A trifle slubby.	..	A trifle slubby.	..	..

##### 3. Spinning Test Details and Results :—See Table 23 on page 69.

## II--REPORT OF THE STANDARDS COMMITTEE FOR KARUNGANNI COTTON.

[illegible]



Table 23.--SPINNING TEST RESULTS FOR KARUNGANNI COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).
						Flow Room Loss.	Card Room Loss.	Spiraling Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	I.E.A.			BALLISTIC.			Keweenaw Class.	Neys per yard.	Turns per inch.				
															Counts Actual.	Strength (lbs.).	Count-Strongly Product.	Counts Actual.	Work of Spindle (inch-lb.).	Count-Work Product.							
763	Karunganni	1929-30	20-6-30	20A	10	5.5	10.1	0.4	15.3	35	159	..	5.10	17.98	19.4	70.0	1430	19.5	126.4	2405	4	6.0	16.3	90	63	77	
763	Karunganni	1929-30	20-6-30	20B		..	..	..	..	15	193	..	5.20	20.23	19.5	57.9	1714	19.4	135.0	2519	4	7.0	19.2	91	64	78	
1160	Karunganni	1930-31	17-8-31	20A	10	6.9	11.0	0.6	19.8	97	190	9100	5.95	17.93	20.4	62.5	1275	20.3	120.5	2432	4	5.5	17.2	84	70	82	
1160	Karunganni	1930-31	18-8-31	24		..	..	..	..	71	160	8000	6.07	19.73	23.6	56.1	1324	24.5	103.6	2539	5	5.0	19.0	85	77	79	
1399	Karunganni	1931-32	20-7-32	20A	10	5.8	11.4	0.6	17.0	135	186	9300	5.91	17.93	19.9	63.3	1260	20.2	117.2	2367	4	3.0	17.2	87	76	83	
1399	Karunganni	1931-32	21-7-32	24		..	..	..	..	118	159	8300	6.13	19.73	23.7	59.9	1208	23.5	104.4	2453	5	3.2	18.8	86	77	85	
1895	Karunganni	1932-33	29-8-33	16	10	6.9	10.6	0.6	17.2	152	184	8200	5.33	15.97	15.7	69.4	1020	15.8	129.6	2049	4	0.5	15.3	87	63	68	
1895	Karunganni	1932-33	30-8-33	20A		..	..	..	..	223	166	8000	5.33	17.93	19.5	59.0	975	19.5	104.2	2071	5	1.0	17.2	83	67	63	
2476	Karunganni	1933-34	5-9-34	16	10	7.5	13.3	0.3	20.1	6	192	8250	5.53	15.97	16.0	61.2	1507	15.9	103.2	2395	3	3.5	15.5	85	78	74	
2476	Karunganni	1933-34	5-9-34	20A		..	..	..	..	52	183	8250	6.22	17.93	20.1	63.9	1244	20.0	115.6	2312	4	4.0	17.3	83	81	71	
2843	Karunganni	1934-35	9-9-35	16	10	6.2	13.8	0.3	19.4	30	193	8700	5.64	15.97	16.2	114.8	1860	15.5	209.6	2312	4	3.2	15.5	86	74	80	
2843	Karunganni	1934-35	10-9-35	20A		..	..	..	..	16	194	8500	5.95	17.93	19.9	81.9	1630	20.1	139.6	2404	4	3.5	17.4	84	71	93	
3393	Karunganni	1935-36	7-10-36	16	10	4.4	9.5	0.4	13.6	24	200	8400	5.54	15.97	16.7	107.1	1631	15.8	207.2	2374	3	4.0	15.2	89	72	70	
3393	Karunganni	1935-36	8-10-36	20A		..	..	..	..	10	180	8400	5.95	17.93	19.7	60.2	1580	19.9	141.6	2418	3	3.8	17.2	88	72	72	
3700	Karunganni	1936-37	15-7-37	16	10	6.8	16.3	0.2	24.0	12	198	8400	5.55	15.97	16.0	98.0	1578	16.2	186.4	2020	3	4.2	15.3	83	83	76	
3700	Karunganni	1936-37	14-7-37	20A		..	..	..	..	10	194	9200	5.78	17.93	20.2	72.8	1471	20.0	120.0	2720	3	5.2	17.2	84	83	78	

\* Diameter of ring frame front roller—7/8". Diameter of rings—1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 24.—A. R. KAMPALA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Special Appeal Committee on African Cottons in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Season.
1130	A. R. Kampala (K.L.A.)	1930-31
1498	A. R. Kampala (K.L.A.)	1931-32
1898	A. R. Kampala (K.L.A.)	1932-33
2464	A. R. Kampala (K.L.A.)	1933-34
2848	A. R. Kampala (B.K.T.)	1934-35
3396	A. R. Kampala (K.L.A.)	1935-36
3675	A. R. Kampala (K.L.A.)	1936-37

### I.—SPINNING TESTS.

#### 1. Treatment :—

- (a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). The 1930-31 sample was passed only once through the Crighton.  
1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).
- (b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.  
1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :—

	KAMPALA.						
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. ..	White to creamy-white; bright.	Creamy-white; brightish.	White; bright.	White to creamy-white; bright.	White to creamy-white.	White to creamy-white; brightish.	Creamy-white to white; bright.
Cleanliness .. ..	Clean.	Very clean.	Clean.	Clean.	Clean.	Clean.	Very clean.
Feel .. ..	Good silky.	Good silky.	Good silky.	Smooth bodied.	Good smooth.	Good silky.	Good bodied.
Ginning and neppiness.	Trifle to knotted and nepped.	A little knotted.	Some what knotted.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds .. ..	Clean.	Clean.	Clean and silky.	Clean.	Clean.	Clean.	Good; clean.
Card Sliver .. ..	Fairly neppy.	A little neppy.	A little neppy.	A little cloudy.	Good even.	Good.	Good; free of nepps.
Weight of 10 flat strips.	19.3 grams.	19.2 grams.	21.5 grams.	25.2 grams.	14.2 grams.	12.7 grams.	14.0 grams.
Remarks .. ..	..	..	..	..	..	..	..

##### (b) Yarn :—

	KAMPALA.						
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness .. ..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.
Evenness .. ..	Even.	Even.	Very even.	Very even.	Very even.	Very even.	Even.
Neppiness .. ..	Some what neppy.	A trifle neppy.	Practically free of nep.	Fairly neppy.	Nep-free.	Some what neppy.	Free of nep.
Remarks .. ..	..	..	..	..	..	..	..

#### 3. Spinning Test Details and Results :—See Table 24 on page. 72.

## II.—REPORT OF THE SPECIAL APPEAL COMMITTEE FOR AFRICAN A. R. KAMPALA COTTON.

KAMPALA.								
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under		..	..	F. G. M. G. Broach No. 2, April/May 1933 delivery.	F. G. M. G. Broach No. 2, July/August 1933 delivery.	F. G. M. G. Broach H. C. No. 2, April/May 1936 delivery.	F. C. M. G. Broach Hedge Contract No. 2, April/May 1937 delivery.	F. G. M. G. Broach Hedge Contract No. 2, July/Aug. delivery.
Class ..		..	..	Superfine ..	..	Fully good to fine ..	..	Fine to superfine ..
Colour ..		..	..	White ..	..	Bright creamy-white ..	..	Whito ..
Staple Length ..		..	..	1 1/16" ..	..	1 1/10" ..	..	1 3/32" ..
Staple Strength ..		..	..	Good ..	..	Fair ..	..	Good ..
Regularity ..		..	..	Regular ..	..	Regular ..	..	Good ..
Value above or below contract rate		..	..	Rs 115 on ..	..	Rs. 112 on ..	..	Rs. 145 on ..
Basis ..		..	..	Rs. 177 ..	..	F. G. M. G. Broach No. 2, April/May 1933 delivery, Rs. 218.	..	F. G. M. G. Broach H. C. No. 2, July/August 1934 delivery, Rs. 205.
Date of Valuation ..		..	..	18-7-31 ..	..	5-10-32 ..	..	7-8-33 ..
Remarks*		..	..	Good sample ..	..	..	..	15-8-34 ..
		..	..	..	..	Staple weak ..	..	20-8-35 ..
		..	..	..	..	..	..	28-9-36.
		..	..	..	..	..	..	16-9-37.
		..	..	..	..	..	..	1/12 off A. R. Kampala Noppy. Box.

\* The difference between 'Pass' and 'Rejection' standards in 1935-36 is Rs. 7.

Table 24.—SPINNING TEST RESULTS FOR KAMPALA COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of sample (lbs.).	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE, ATONE, HYGRO. (%).	RELATIVE HUMIDITY, (%).
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss, †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R. P. M.	Spindle Speed R. P. M.	Draft.	Turns per inch.	T.S.A.			Reverence Class.	Steps per yard.	Turns per inch Actual.							
															Counts Actual.	Strength (lbs.)	Count-Product.										
																		Counts Actual.		Strength (lbs.)	Count-Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Product.			
															1130	Kampala	1930-31	29-7-31	20	10	4.1	10.3	0.4	14.3	10		
1130	Kampala	1930-31	29-7-31	30						0	150	9650	6.70	21.86	29.0	65.2	19.19	29.8	107.2	3194	4	4.5	21.2	86	79	85	
1130	Kampala	1930-31	30-7-31	40						8	138	9700	8.03	23.28	30.5	43.8	17.50	39.5	80.2	3168	5	3.5	24.0	86	78	83	
1498	Kampala	1931-32	10-10-32	20	10	3.9	10.4	0.3	14.1	0	100	9800	5.81	17.98	20.2	100.0	21.53	20.2	103.4	3907	3	2.2	17.2	87	68	69	
1498	Kampala	1931-32	10-10-32	30						0	162	9700	0.41	21.86	29.5	63.4	18.70	29.2	108.2	3150	4	2.2	21.3	87	68	67	
1498	Kampala	1931-32	11-10-32	40						18	139	9700	8.07	25.28	40.5	58.7	15.67	39.3	74.2	2910	5	3.0	24.2	87	67	64	
1808	Kampala	1932-33	5-9-33	20	10	3.4	10.6	0.4	14.1	47	105	9600	6.07	17.98	20.6	91.4	18.83	20.0	178.8	2683	2	1.2	17.3	86	75	76	
1808	Kampala	1932-33	9-9-33	30						3	160	9656	6.63	21.86	29.5	65.2	19.23	20.8	111.6	3320	3	1.5	21.1	85	77	79	
1809	Kampala	1932-33	9-9-33	40						15	139	9650	8.62	25.28	40.3	41.4	16.63	39.0	81.0	3232	4	1.8	24.4	86	76	79	
2464	Kampala	1933-34	31-8-34	20	10	5.0	12.6	0.1	17.1	5	205	10000	5.99	17.93	20.2	103.7	21.96	20.2	192.4	3947	2	5.8	17.1	87	70	82	
2464	Kampala	1933-34	31-8-34	30						0	163	10000	0.03	21.86	30.0	65.7	19.71	29.0	109.1	2242	3	4.2	20.7	89	71	82	
2464	Kampala	1933-34	31-8-34	40						2	144	9200	8.71	25.28	39.2	44.1	17.29	38.2	82.6	3180	4	5.2	24.3	86	72	84	
2464	Kampala	1933-34	30-8-34	50						4	131	10000	10.10	29.16	49.7	31.2	15.51	49.3	52.8	2603	5	4.8	27.1	86	72	81	
2848	Kampala	1934-35	19-9-35	30	10	3.1	9.8	0.3	12.9	7	160	9550	7.06	21.86	29.7	64.0	19.10	30.1	103.0	3251	3	0.8	21.1	85	70	70	
2848	Kampala	1934-35	11-9-35	40						15	138	9600	7.97	25.28	39.4	43.7	17.22	39.2	89.0	3450	4	0.6	24.5	83	77	77	
2848	Kampala	1934-35	13-9-35	50						14	126	9600	10.19	23.16	50.1	30.1	15.08	80.0	53.8	2690	5	0.8	27.1	83	79	67	
3396	Kampala	1935-36	9-10-36	30	10	3.4	9.3	0.2	11.6	0	173	10200	7.14	21.86	30.9	61.2	19.84	31.1	101.2	3241	3	2.5	20.9	83	71	66	
3396	Kampala	1935-36	12-10-36	40						0	149	10100	7.81	25.28	10.1	43.3	17.56	40.4	80.2	3240	4	3.0	24.1	89	65	62	
3396	Kampala	1935-36	13-10-36	50						5	139	10100	10.00	29.16	50.6	31.4	15.80	52.1	62.0	3230	5	2.8	26.0	83	71	66	
3672	Kampala	1936-37	26-6-37	30	10	2.8	8.1	0.3	11.0	3	150	10200	7.79	20.71	30.8	63.0	20.94	29.6	105.6	3231	4	0.8	10.8	86	78	78	
3675	Kampala	1936-37	25-6-37	40						7	134	10500	8.67	27.79	32.0	47.3	18.45	39.0	84.0	3322	5	0.8	22.9	86	74	78	
3675	Kampala	1936-37	25-6-37	50						12	134	10200	9.31	26.72	49.4	32.8	16.20	50.7	65.6	3329	6	1.0	25.8	86	77	79	

\* Diameter of ring frame front roller: 1". Diameter of ring: 1-15".

† It is to be noted that the total loss for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

Table 25—SPINNING TEST RESULTS FOR BUSOGA COTTON.

Sample No.	Cotton	Season.	Date of Spinning	Counts Normal.	Weight of Sample (lbs)	WASTE PERCENTAGES.				RING FRAMP PARTICULARS *				YARN TEST RESULTS						TEMPERATURE (°F)	RELATIVE HUMIDITY (%)	Testing Room				
						Blow Room Loss.	Card Room Loss.	Spinning Loss	Total Loss †	Yarn Breakages per 100 spindles per hour	Front Roller speed R P M	Spindle speed R P M	Draft	Turns per inch	LFA			BALLASTIC					Twists per inch Actual.	Twists per inch	Fineness Class	
															Counts Actual	Strength (lbs)	Count- Strength Product	Counts Actual	Wool of Mature (incl lb)							Count- Work Product
1131	Busoga	1030-31	20-7-31	20	8	5.3	12.3	6.6	17.4	20	195	9750	5.73	17.08	10.4	117.3	2276	19.8	109.8	3956	2	3.7	17.1	87	73	85
1131	Busoga	1030-31	20-7-31	30		.	.	.	.	0	150	9850	6.67	21.80	20.3	99.1	2025	30.1	113.6	3119	1	5.5	20.9	86	70	80
1131	Busoga	1030-31	30-7-31	40		.	.	.	.	21	138	9790	8.80	25.28	39.0	14.1	1720	39.2	82.6	1238	5	5.5	24.3	86	78	83
1400	Busoga	1031-32	12-10-32	26	10	5.9	9.9	0.4	15.3	20	199	9700	5.95	17.09	20.7	109.0	2275	20.9	184.8	3853	2	2.2	17.3	89	65	67
1400	Busoga	1031-32	11-10-32	30		.	.	.	.	10	163	9700	6.78	21.80	28.6	70.7	2622	28.6	118.2	3381	3	2.2	21.2	88	63	68
1400	Busoga	1031-32	11-10-32	40		.	.	.	.	5	139	9790	8.83	25.28	39.5	45.1	1781	70.7	70.8	3163	1	2.8	24.0	87	67	68
1897	Busoga	1032-33	5-9-33	20	10	7.5	10.9	0.5	17.1	88	196	9850	5.95	17.09	19.9	95.9	1709	20.1	185.8	3735	2	1.0	17.3	89	74	76
1897	Busoga	1032-33	5-9-33	36		.	.	.	.	37	190	9800	6.47	21.80	29.1	91.8	1889	28.0	111.0	3192	3	1.8	21.2	87	74	78
1897	Busoga	1032-33	8-9-33	46		.	.	.	.	24	138	9850	8.71	25.28	78.1	37.0	1144	38.1	74.2	2827	5	1.5	24.1	86	75	70
2463	Busoga	1033-34	28-8-34	20	16	5.3	11.4	0.2	16.3	0	202	9890	5.81	17.08	20.3	111.3	2259	20.4	186.4	3501	2	4.8	17.1	86	70	74
2463	Busoga	1033-34	28-8-34	36		.	.	.	.	3	169	9990	6.47	21.80	30.1	65.8	1994	30.1	101.0	3118	3	4.5	20.6	89	71	75
2463	Busoga	1033-34	20-8-34	40		.	.	.	.	7	144	9990	8.55	25.28	41.1	40.8	1677	41.0	75.4	7091	4	4.8	24.0	86	70	72
2463	Busoga	1033-34	30-8-34	50		.	.	.	.	2	131	9990	10.18	29.16	40.5	31.0	1534	50.3	61.0	2565	5	4.0	26.9	89	73	74
2847	Busoga	1034-35	18-9-35	30	10	3.8	11.7	0.4	15.4	17	164	9950	7.70	21.80	30.2	68.4	2060	30.4	114.8	1490	3	1.6	21.0	85	71	71
2847	Busoga	1034-35	16-9-35	40		.	.	.	.	5	133	9250	8.09	25.28	39.2	49.4	1819	40.1	89.8	3704	4	4.2	24.4	83	80	76
2847	Busoga	1034-35	13-9-35	50		.	.	.	.	21	125	9990	10.00	29.16	10.9	32.8	1637	49.5	60.5	2914	4	3.8	27.1	81	70	70
3395	Busoga	1035-36	9-10-36	36	10	3.8	9.5	0.3	13.2	7	171	10350	7.14	21.86	30.6	71.8	2107	31.5	106.4	7352	4	3.5	20.9	87	71	69
3395	Busoga	1035-36	10-10-36	46		.	.	.	.	0	148	16190	7.73	25.28	39.5	50.0	1975	40.9	83.2	3401	5	4.2	24.6	88	72	69
3395	Busoga	1035-36	14-16-36	50		.	.	.	.	6	136	16350	9.81	28.16	40.3	75.1	1770	50.8	66.6	7181	5	4.5	27.1	98	70	65
3674	Busoga	1036-37	23-6-37	30	10	4.8	8.2	0.4	13.0	23	180	10200	8.00	26.74	70.3	61.4	1951	30.9	103.2	7189	4	2.2	19.8	86	70	73
3674	Busoga	1036-37	24-6-37	40		.	.	.	.	12	164	10300	7.73	23.79	39.0	10.1	1915	70.8	83.0	3303	4	2.2	27.0	87	76	79
3674	Busoga	1036-37	24-6-37	50		.	.	.	.	12	134	10200	9.81	26.75	50.0	35.1	1775	50.9	60.0	3379	5	2.5	25.9	86	75	78

• Diameter of ring frame front roller—7/8". Diameter of rings—1 5/8".

† It is to be noted that the total loss is the sum of the four losses given in the Waste Percentages column.

\* Diameter of ring frame front roller—7/8". Diameter of rings—1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 26—A. R. JINJA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Special Appeal Committee on African Cottons, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average Cotton of the commercial crop.

Sample No.,	Cotton.	Season.
1133	A. R. Jinja (K.I.G.)	1930-31
1500	A. R. Jinja (K.U.M.)	1931-32
1896	A. R. Jinja (A.R.A.)	1932-33
2462	A. R. Jinja (R.N.P.)	1933-34
2846	A. R. Jinja (S.R.I.)	1934-35
3394	A. R. Jinja (S.R.I.)	1935-36
3702	A. R. Jinja ( . . )	1936-37

### I.—SPINNING TESTS.

#### 1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times); the 1930-31 sample was passed only once through the Crighton.

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. I.

1934-35 onwards :—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles while Ring Frame No. I possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :—

		JINJA.						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	.. ..	Creamy-white; bright.	Creamy-white.	White to creamy-white; brightish.	White to creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; brightish.	Creamy-white to white.
Cleanliness	.. ..	Fairly clean.	Fairly clean.	..	Clean.	Fairly clean.	Clean.	Very clean.
Feel	.. ..	Soft and silky.	Good softish.	Soft silky.	Good silky.	Good silky.	Good silky.	Good silky.
Ginning and neppiness.		Too much knotted and nepped.	Some-what knotted.	Fairly well-ginned.	A little knotted.	A good deal knotted and nepped.	Well-ginned.	Well-ginned.
Seeds	.. ..	..	..	..	..	..	..	..
Card Sliver	.. ..	Clean.	Clean.	Silky, soft and clean.	Clean.	Clean.	Clean.	Good; clean.
Card Web	.. ..	Too neppy.	A little neppy.	Good.	Cloudy and neppy.	Some-what neppy.	Good.	Good; nep-free.
Weight of 10 flat strips.		20.9 grams.	18.3 grams.	19.5 grams.	26.2 grams.	19.5 grams.	17.0 grams.	16.1 grams.
Remarks	.. ..	..	..	..	..	..	..	..

##### (b) Yarn :—

		JINJA.						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	.. ..	Fairly clean	Clean.	Clean.	Clean.	Fairly clean.	A trifle leafy.	Clean.
Evenness	.. ..	Even.	Even.	Very even.	Even.	Even.	Fairly even.	Fairly even.
Neppiness	.. ..	Neppy.	Some-what neppy.	Practically free of nep.	Fairly neppy.	Neppy.	Neppy.	Fairly free of nep.
Slubbiness	.. ..	..	..	..	..	Occasionally slubby.	..	..
Remarks	.. ..	..	..	..	..	..	..	..

#### 3. Spinning Test Details and Results :—See Table 26 on page 78.

# II.—REPORT OF THE SPECIAL APPEAL COMMITTEE ON AFRICAN COTTON, A. R. JINJA.

JINJA.									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under	..	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2, April/ May 1933 dely.	F. G. M. G. Broach No. 2, July/ August 1933 dely.	F. G. M. G. Broach H. C. No. 2, July/August 1934.	F. G. M. G. Broach Hedgo con- tract No. 2, April/May 1936 delivery.	F. G. M. G. Broach Hedgo Con- tract No. 2, April/May 1937 delivery.	F. G. M. G. Broach Hedgo Con- tract No. 2, July/ August delivery.	
Class ..	..	.. Fine ..	.. Good to fully good ..	.. Fully good to fine ..	.. Fine ..	.. Fully good to fine ..	.. Fully good ..	.. Superfine.	
Colour ..	..	.. Creamy ..	.. Rather dull with yellow stains.	.. Dull; somewhat stained.	.. Creamy-white ..	.. Creamy-yellow ..	.. Dull and creamy ..	.. Creamy-white.	
Staple Length ..	..	.. About 1" ..	.. 1" ..	.. 1 1/16" ..	.. 1 1/16" ..	.. 1 1/32" ..	.. 1 1/32" ..	.. 1 1/16".	
Staple Strength ..	..	.. Fair ..	.. Fair ..	.. Good ..	.. Good ..	.. Fair ..	.. Good ..	.. Good.	
Regularity ..	..	.. Fair ..	.. Irregular ..	.. Fair ..	.. Fair ..	.. Slightly irregular ..	.. Regular ..	.. Regular.	
Value above or below contract rate ..	..	.. Rs. 100 on ..	.. Rs. 90 on ..	.. Rs. 132 on ..	.. Rs. 135 on ..	.. Rs. 120 on ..	.. Rs. 128 on ..	.. Rs. 185 on.	
Basis ..	..	.. Rs. 189 ..	.. F. G. M. G. Broach No. 2, April/ May 1933 dely. Rs. 218.	.. F. G. M. G. Broach No. 2, July/ August 1933 dely. Rs. 265.	.. F. G. M. G. Broach H. C. No. 2, July/August 1934 delivery, Rs. 223.	.. F. G. M. G. Broach H. C. No. 2, April/May 1936 deli- very, Rs. 191.	.. F. G. M. G. Broach H. C. No. 2, April/May, 1937 deli- very, Rs. 221.	.. F. G. M. G. Broach Hedgo Con- tract No. 2, July/Au- gust delivery, Rs. 208.	
Date of Valuation ..	..	.. 24-7-31 ..	.. 5-10-32 ..	.. 7-8-33 ..	.. 15-8-34 ..	.. 27-8-35 ..	.. 28-9-36 ..	.. 15-7-37.	
Remarks *	..	.. Poor sample ..	.. ..	.. ..	.. ..	.. ..	.. Rs. 5/4 off A. R. Jinja Pass,	.. Better than average quality.	

\* The difference between 'Pass' and 'Rejection' standards in 1935-36 is Rs. 7/4.

Table 26--SPINNING TEST RESULTS FOR JINJA COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE, ROOM, (°F).	RELATIVE HUMIDITY, (%).
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	LEA.			TENSILE.			Evenness Class.	Neps per yard.	Turns per Inch Actual.	Spiraling Room.	Spiraling Room, (°F).		
															Counts Actual.	Strength (lbs.).	Count Strength Product.	Counts Actual.	Work of Sample (inches).	Count Strength Product							
1133	Jinja	..	1030-31	30-7-31	20	10	5.3	11.2	0.3	10.2	0	100	9700	0.07	17.98	109.3	2153	20.1	185.6	3731	2	0.2	17.0	84	82	88	
1133	Jinja	..	1030-31	31-7-31	30		..	..	..	7	160	9700	0.89	21.86	28.8	1852	20.7	105.0	3118	4	7.0	20.7	85	80	70		
1133	Jinja	..	1030-31	31-7-31	40		..	..	..	13	138	9050	0.20	25.28	40.4	1584	40.4	74.8	3022	5	7.0	24.0	81	80	78		
1600	Jinja	..	1031-32	12-10-32	20	10	6.0	9.9	0.4	10.4	62	100	9700	0.07	17.98	112.4	2214	10.9	102.0	3821	3	5.5	17.6	80	65	68	
1600	Jinja	..	1031-32	11-10-32	30		..	..	..	14	103	9700	6.54	21.80	20.0	1993	20.1	110.2	3469	4	6.0	21.6	88	63	68		
1600	Jinja	..	1031-32	12-10-32	40		..	..	..	10	138	9750	8.70	25.28	39.5	1098	38.1	77.4	2940	5	5.5	24.7	80	92	69		
1800	Jinja	..	1032-33	5-0-33	20	10	5.0	9.8	0.4	15.5	88	100	9050	5.80	17.98	100.3	1797	20.5	175.4	3500	2	1.8	17.3	80	74	78	
1800	Jinja	..	1032-33	5-0-33	30		..	..	..	3	160	9600	0.38	21.80	20.3	1095	30.4	114.2	3357	3	2.0	21.1	87	74	77		
1900	Jinja	..	1032-33	8-0-33	40		..	..	..	2	138	9650	8.87	25.28	38.0	1583	30.4	70.4	3128	4	1.5	24.3	80	75	80		
2402	Jinja	..	1033-34	28-8-34	20	10	5.0	13.0	0.2	18.0	0	202	9300	6.05	17.08	112.7	2288	20.2	100.0	3959	2	5.0	17.2	80	70	70	
2402	Jinja	..	1033-34	28-8-34	30		..	..	..	0	160	9900	6.54	21.80	29.7	2150	20.6	116.4	3410	3	4.5	21.3	80	71	77		
2402	Jinja	..	1033-34	29-8-34	40		..	..	..	10	144	9900	8.03	25.28	42.2	1780	41.7	77.6	3230	4	4.5	24.6	86	70	72		
2402	Jinja	..	1033-34	30-8-34	50		..	..	..	2	131	9960	10.19	29.10	51.3	1037	50.7	63.2	2007	5	4.7	27.4	86	73	74		
2846	Jinja	..	1034-35	18-9-35	30	10	5.0	11.6	0.4	10.3	10	103	9700	7.05	21.86	30.7	2057	30.5	107.4	3270	3	5.6	20.7	85	69	60	
2840	Jinja	..	1034-35	16-9-35	40		..	..	..	22	138	9600	7.94	25.28	39.7	1886	30.5	90.4	3571	4	5.0	24.2	84	80	73		
2840	Jinja	..	1034-35	17-9-35	50		..	..	..	10	124	9600	10.20	28.16	51.5	1013	50.5	63.0	2070	5	5.2	20.6	84	80	00		
3394	Jinja	..	1035-30	8-10-30	30	10	4.4	10.7	0.4	14.0	7	170	10300	7.35	21.80	70.3	2180	31.1	109.4	3402	4	4.0	21.2	88	72	70	
3304	Jinja	..	1035-30	10-10-30	40		..	..	..	7	148	10350	7.58	25.28	30.3	1000	39.3	80.4	3300	4	3.8	24.4	88	72	00		
3304	Jinja	..	1035-30	13-10-30	50		..	..	..	5	138	10400	10.00	29.10	50.9	1780	50.8	60.4	3373	5	4.2	27.3	87	71	90		
3702	Jinja	..	1036-37	17-7-37	30	10	4.2	9.7	0.4	13.9	13	183	10300	7.34	20.74	30.7	2278	30.9	108.2	3343	4	1.8	19.9	80	78	79	
3702	Jinja	..	1036-37	19-7-37	40		..	..	..	10	104	10300	7.73	23.70	38.7	2082	10.0	80.0	3440	5	2.0	23.0	80	77	70		
3702	Jinja	..	1030-37	20-7-37	50		..	..	..	23	143	10300	10.00	20.75	50.4	1824	52.4	60.4	3470	6	1.2	25.9	86	79	70		

\* Diameter of ring frame front roller: 7/8". Diameter of rings: 1 1/4".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.



## 1.—FARM WESTERNS COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
1776	Farm Westerns	Bellary .. ..	1932-33
2374	Farm Westerns	Bellary .. ..	1933-34
2748	Farm Westerns	Adoni .. ..	1934-35
3150	Farm Westerns	Adoni .. ..	1935-36
3507	Farm Westerns	Adoni .. ..	1936-37

### I. SPINNING TESTS.

#### 1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).  
1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :—

—	FARM WESTERNS.				
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. ..	White to creamy-white.	Creamy-white.	Creamy-white.	White to creamy-white.	White to creamy-white.
Cleanliness .. ..	Leafy.	Very leafy (very fine leaf).	Leafy.	Fairly leafy..	A fair amount of leaf; a trifle stained.
Feel .. ..	Softish.	Good smooth.	Good.	Softish.	Good-bodied.
Ginning and neppiness	A trifle knotted.	Well-ginned.	Somewhat knotted.	A little knotted by ginning.	Well-ginned.
Seeds .. ..	A few seeds.	Too many (2.40%) seeds.	..	..	..
Card Sliver .. ..	Clean.	Leafy.	Clean.	Clean and soft.	Even; leafy.
Card Web .. ..	Even and nep-free.	Good.	Good.	Good.	A little neppy, leafy.
Weight of 10 flat strips	17.6 grams.	21.5 grams.	17.8 grams.	13.8 grams.	14.0 grams.
Remarks .. ..	..	..	..	..	..

##### (b) Yarn :—

—	FARM WESTERNS.				
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness .. ..	Clean.	Leafy.	Clean.	Almost clean.	Leafy.
Evenness .. ..	Fairly even.	Fairly uneven.	Even.	Fairly even.	Fairly even.
Neppiness .. ..	A little neppy.	A little neppy.	Almost free of nep.	Practically free of nep.	Fairly free of nep.
Slubbiness .. ..	..	..	..	..	..

#### 3. Spinning Test Details and Results :—See Table 1 on page 81.



Table 1.—SPINNING TEST RESULTS FOR FARM WESTERNS COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Samples, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.						YARN TEST RESULTS.						TEMPERATURE (°F.)		RELATIVE HUMIDITY (%).	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.	Draft.	Turns per Inch.	L.F.A.			BALISTIC.			Spiraling Room.	Spiraling Room.	Testing Room.		
															Counts Actual	Strength (lbs.)	Count-Strength Product.	Counts Actual	Work of Rupture (inch-lb.)	Count-Work Product.				Twines Actual.	Neps per yard.
1776	Farm Westerns.	1932-33	18-5-33	20	10	11.2	10.0	0.6	20.6	62	196	9050	5.41	17.98	73.5	1155	20.1	116.0	2233	1	2.2	17.1	88	68	70
1776	Farm Westerns.	1932-33	19-5-33	24		..	..	..	..	82	174	9400	0.32	10.73	51.5	1292	23.9	95.4	2280	4	2.8	18.9	87	66	68
2374	Farm Westerns.	1933-34	10-7-34	20	10	15.0	11.9	0.5	25.5	26	196	9000	6.07	17.98	69.4	1331	19.7	117.8	2321	4	1.5	17.0	87	72	76
2374	Farm Westerns.	1933-34	11-7-34	24		..	..	..	..	50	170	9150	5.45	10.73	58.8	1361	23.5	96.0	2256	5	1.5	19.0	87	74	78
2374	Farm Westerns.	1933-34	10-7-34	30		..	..	..	..	56	164	9000	0.71	23.11	40.4	1212	29.5	78.4	2313	0	2.0	22.2	86	81	80
2748	Farm Westerns.	1934-35	19-6-35	20	10	11.2	9.0	0.5	20.2	21	107	9050	5.35	17.98	87.0	1712	19.8	141.8	2308	3	1.5	17.3	86	73	80
2748	Farm Westerns.	1934-35	19-6-35	24		..	..	..	..	45	180	9000	5.32	19.73	68.1	1607	23.7	114.4	2711	4	1.5	19.1	80	73	79
2748	Farm Westerns.	1934-35	20-6-35	30		..	..	..	..	36	160	9500	0.71	23.11	52.4	1535	23.7	92.1	2744	5	1.2	22.4	85	75	77
3150	Farm Westerns.	1935-36	23-4-36	20	10	9.1	8.2	0.0	16.9	42	105	9600	5.05	17.93	65.7	1327	19.0	129.4	2477	4	0.8	17.4	88	67	70
3150	Farm Westerns.	1935-36	22-4-36	24		..	..	..	..	73	170	9000	5.51	19.73	44.8	1110	21.5	104.0	2519	4	0.8	19.4	88	66	72
3150	Farm Westerns.	1935-36	21-4-36	30		..	..	..	..	66	140	8750	0.70	23.26	39.8	1214	30.0	78.4	2352	5	1.0	22.1	80	68	70
3507	Farm Westerns.	1936-37	25-2-27	20	10	10.2	8.5	0.4	18.2	10	100	9350	5.93	17.98	81.9	1673	19.7	121.0	2455	4	1.8	17.2	83	69	68
3507	Farm Westerns.	1936-37	25-2-27	24		..	..	..	..	46	170	9200	5.56	19.73	61.6	1197	24.4	101.8	2484	5	1.8	19.0	84	68	68
3507	Farm Westerns.	1936-37	26-2-27	30		..	..	..	..	17	148	9350	0.67	23.26	48.1	1418	29.7	82.2	2441	0	1.5	22.1	83	68	68

\* Diameter of ring frame front roller: 1½". Diameter of rings: 1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 2.—BAILHONGAL COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, who have very kindly agreed to arrange for the supply each season of samples of the arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)
1042	Bailhongal	1930-31	12
1315	"	1931-32	12
1775	"	1932-33	11
2371	"	1933-34	11
2743	Bailhongal Compta	1934-35	11
3147	Bailhongal	1935-36	11
3550	"	1936-37	11

### I. SPINNING TESTS.

#### 1. Treatment:—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report:—

(a). *Cotton* :—

		Bailhongal.						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
..	.. Creamy-white.	Dull white.	Dullish creamy-white.	Creamy-white.	White to creamy-white.	White to creamy-white.	Creamy-white.	
..	.. Fairly leafy.	Leafy; almost free of stains.	Leafy—very fine leaf.	Very leafy.	Leafy (very fine leaf.)	Leafy.	Leafy.	
..	.. Good.	Soft.	Good.	Good.	Good.	Good.	Fair.	
noppiness.	Well-ginned.	Well-ginned.	Well-ginned.	Slightly knotted.	Well-ginned.	Well-ginned.	Well-ginned.	
..	.. 1% ginned and partly ginned.	..	..	..	Contains too many unginned seeds.	..	..	
..	.. Clean.	A little pin trash present.	A trifle leafy.	Fairly leafy.	Clean.	Clean.	Good.	
..	.. Very good.	Even and nep-free	Even and nep-free	Good.	Even and nep-free.	Good.	Good.	
n flatstrips	11.2 grams.	15.0 grams; dirty.	15.2 grams.	19.5 grams.	15.0 grams.	12.8 grams.	13.2 grams.	
..	.. Fully pressed.	Fine s t r o n g staple.	Contains much very short fibre.	..	..	..	..	

(b) *Yarn* :—

Bailhongal.							
1930-31.		1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
..	Clean.	A trifle leafy.	Clean.	Almost clean.	Almost clean.	Clean.	Almost clean.
..	Fairly even.	Even.	Fairly even.	Even in the two lower counts,	Fairly even.	Even.	Even.
..	A little nappy.	Fairly free of nep.	Free of nep.	Free of nep.	Practically free of nep.	Almost nep-free.	Fairly free of nep.
..	..	..	..	Slubby.	..	..	..
..	..	..	..	..	..	..	..

3. *Spinning Test Details and Results*.—See Table 2 on page 84.

## II. GRADER'S REPORT\* FOR BAILHONGAL COTTON.

BAILHONGAL.									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under ..	..	Broach.	Broach/Kumbla.	Hedge Contract No. 5 southern.	Broach.	July/Aug. Broach.	Broach April/May.	Broach April/May.	
Class ..	..	Fully Good.	Fully Good.	Good M. G.	Fully Good.	Fully good to fine.	Fully good to fine.	Fully good to fine.	
Colour ..	..	Reddish.	Reddish Line.	Brownish.	Brownish.	Brownish white.	Brownish white.	Brownish white.	
Staple Length ..	..	7/8".	31/32".	7/8".	13/16".	3/4".	13/16".	7/8".	
Staple Strength ..	..	Fair.	Good.	Moderate.	Fair.	Fair.	Good.	Good.	
Regularity ..	..	Fair.	Fair.	Regular.	Fair.	Somewhat irregular.	Fair.	Good.	
Value above or below contract rate ..	..	Rs. 35 on.	Rs. 30 on.	Rs. 25 on.	Rs. 15 on.	Rs. 30 on.	Rs. 30 on.	Rs. 30 on.	
Basis ..	..	Rs. 190.	Rs. 170.	F. G. Broach April/May 1933.	Broach July/Aug. Rs. 203.	Rs. 232.	Rs. 203.	Rs. 247.	
Date of Valuation ..	..	11-5-31.	5-5-32.	15-5-33.	9-7-34.	3-7-35.	20-4-36.	23-3-37.	
Remarks ..	..	..	..	Inferior in staple to last year's crop.	..	..	..	..	

\* Reports for 1932-33, 1933-34 and 1935-36 onwards were made by the mill supplying the sample.

Table 2.—SPINNING TEST RESULTS FOR BAILHONGAL COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPER. ATUEN. (°F.)	RELATIVE HUMIDITY. (%)				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 spindles	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	LEA.			DISTRICT.									
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.	Evenness Class.			Keps per yard.	Turns per Inch Actual.		
1042	Bailhonga.	1930-31	4-5-31	20	10	12.2	8.2	0.3	10.7	0	188	9150	6.25	17.08	10.8	71.0	1483	10.8	114.1	2265	3	2.2	17.3	89	70	70	70
1043	Bailhonga.	1930-31	4-5-31	24		..	..	..	..	4	177	9300	5.05	10.73	23.1	61.0	1427	23.3	95.6	2227	4	1.5	10.0	91	65	70	65
1045	Bailhonga.	1930-31	8-5-31	30B		..	..	..	..	62	157	9000	7.58	23.11	20.2	44.0	1235	29.7	76.8	2281	5	2.0	22.1	91	67	68	68
1315	Bailhonga.	1931-32	20-4-32	20	10	13.3	0.2	0.7	21.8	78	194	9050	5.45	17.08	20.2	67.1	1361	20.6	104.1	2151	3	1.9	17.5	90	66	66	66
1315	Bailhonga.	1931-32	20-4-32	24		..	..	..	..	109	173	9439	6.54	10.73	21.6	45.8	1127	21.7	87.8	2169	4	2.2	10.0	90	62	63	63
1315	Bailhonga.	1931-32	30-4-32	30B		..	..	..	..	70	151	9500	6.76	23.11	28.0	44.3	1280	29.0	80.0	2320	5	2.5	22.2	89	66	70	66
1775	Bailhonga.	1932-33	18-5-33	20	10	15.6	10.2	0.6	24.7	119	196	9050	5.21	17.08	20.6	64.3	1325	29.6	107.6	2217	1	0.8	17.2	88	68	70	68
1775	Bailhonga.	1932-33	19-5-33	24		..	..	..	..	91	174	9100	6.02	10.73	23.8	51.2	1219	23.4	92.6	2107	1	1.0	18.9	87	66	68	66
2371	Bailhonga.	1933-34	9-7-31	20	10	13.8	11.2	0.4	23.8	36	200	9200	6.10	17.08	20.0	73.2	1464	20.0	110.8	2216	3	0.8	17.5	96	76	75	75
2371	Bailhonga.	1933-34	10-7-31	24		..	..	..	..	36	170	9000	5.47	10.73	23.1	64.1	1181	23.7	98.6	2337	4	1.0	10.3	87	74	78	74
2371	Bailhonga.	1933-34	10-7-31	30B		..	..	..	..	102	154	9000	6.76	23.11	30.6	43.2	1322	29.8	78.8	2318	5	0.8	22.2	86	81	80	80
2743	Bailhonga.	1934-35	10-6-35	20	10	12.8	8.7	0.3	20.7	10	194	9300	5.81	17.08	20.0	63.8	1870	20.1	135.8	2730	1	0.8	17.4	90	69	73	69
2743	Bailhonga.	1934-35	1-6-35	24		..	..	..	..	27	105	8750	5.43	10.73	23.6	76.7	1810	23.3	117.0	2740	4	1.0	19.0	90	69	77	69
2743	Bailhonga.	1934-35	12-6-35	30B		..	..	..	..	13	152	9050	6.76	23.11	28.6	61.8	1767	28.5	98.4	2804	5	0.8	22.6	90	68	82	68
3147	Bailhonga.	1935-36	17-4-36	20	10	10.9	7.1	0.4	17.6	47	192	9150	5.05	17.08	20.2	66.5	1313	19.5	119.4	2328	3	1.0	17.1	80	67	70	67
3147	Bailhonga.	1935-36	20-4-36	24		..	..	..	..	14	173	9300	6.11	10.73	23.6	50.8	1109	23.8	90.0	2285	4	1.2	18.7	80	68	72	68
3550	Bailhonga.	1936-37	6-4-37	20	10	13.2	8.6	0.6	21.2	10	190	9100	6.13	17.08	20.2	83.7	1691	20.0	123.8	2478	3	1.2	17.1	85	67	68	68
3550	Bailhonga.	1936-37	6-4-37	24		..	..	..	..	23	174	9320	5.21	10.73	23.3	71.0	1651	23.1	107.6	2186	4	1.0	18.8	86	65	68	65
3550	Bailhonga.	1936-37	8-4-37	30A		..	..	..	..	36	158	9500	6.28	21.86	20.4	40.2	1416	29.0	85.6	2530	5	1.0	20.4	85	67	68	68

\* Diameter of ring frame front roller—1". Diameter of ring—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

### 3.—BROACH COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals\* of the new crop.

Sample No.	Cotton.	Season.
1007	Broach (Salar)	1930-31
1314	" (Salar)	1931-32
1707	" (Sadhli)	1932-33
2372	" (Sadhli)	1933-34
2744	" (Broach)	1934-35
3148	" (Jambusar)	1935-36
3508	" (Palej)	1936-37

NOTE—The mill supplying the sample explains that Sadhli is a station in the Broach District and Salar is merely the type name given by a seller to Sadhli or similar cotton.

\*The 1935-36 sample does not represent the early arrivals of Broach but represents the average quality of the Broach cotton.

#### I.—SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room*—Up to 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Up to 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report.

###### (a) Cotton :—

	Broach.						
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. ..	White to creamy-white.	Creamy-white.	White; bright.	White to creamy-white; bright.	White to creamy-white; bright.	White; bright.	White.
Cleanliness .. ..	Very bright, clean.	Clean, almost free of leaf.	Almost clean.	Fairly clean.	Fairly clean.	Fairly clean.	Fairly clean; a trifle stained.
Feel .. ..	Good silky.	Fairly good.	Good-bodied.	Good.	Good smooth.	Smooth-bodied.	Good soft.
Ginning and Neppiness	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds .. ..	..	..	..	..	..	..	..
Card Sliver .. ..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.
Card Web .. ..	First class.	Even and nep-free.	Even and nep-free.	Good.	Good.	Even and nep-free.	Free of nep.
Weight of 10 flatstrips.	12.6 grams.	16.2 grams.	15.2 grams.	17.5 grams.	21.6 grams.	17.5 grams.	15.8 grams.
Remarks .. ..	Fully pressed.	Medium fine staple, regular and fairly strong.	..	..	..	..	..

###### (b) Yarn :—

	Broach.						
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness .. ..	Clean.	Clean.	Clean.	Clean.	Clean.	A little leafy.	A little leafy.
Evenness .. ..	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Somewhat uneven.	Fairly even.	Fairly even.
Neppiness .. ..	Free of nep.	Almost free of nep.	Free of nep.	Free of nep.	A trifle neppy.	Free of nep.	Almost free of nep.
Slubbiness .. ..	..	..	Shows an occasional snib.	..	Slightly slubby.	..	..
Remarks .. ..	..	..	..	..	..	..	..

##### 3. Spinning Test Details and Results.—See Table 3 on page 87.





Table 3.—SPINNING TEST RESULTS FOR BROACH COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Sample No.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).	
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 spindles per hour.	Front Roller speed R.P.M.	Spindles per inch R.P.M.	Draft.	Turns per inch.	LFA.			BARKSTIC.			Liverness Class.	Keps per yard.	Turns per inch Actual.			
														Counts Actual.	Strength (lbs).	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.						
1007	1930-31	17-3-31	16A	10	7.0	8.7	0.6	16.5	7	184	8066	5.75	15.07	16.6	60.0	970	16.6	121.2	2012	3	1.2	15.5	81	67	69
1007	1930-31	17-3-31	20		..	..	..	..	50	180	10000	0.25	20.23	20.1	58.1	1168	20.5	101.4	2140	4	1.7	10.6	82	66	68
1311	1931-32	20-4-32	12	10	5.3	8.0	0.5	14.2	7	208	8000	4.36	13.02	12.0	65.3	1144	12.0	207.2	2428	4	1.5	13.4	88	63	72
1314	1931-32	28-4-32	16A		..	..	..	..	88	181	8100	5.06	15.07	16.1	57.0	932	16.2	130.6	2116	5	1.8	15.3	00	68	60
1314	1931-32	20-4-32	10B		..	..	..	..	62	100	9000	5.06	16.07	16.0	60.8	1117	15.3	154.4	2362	4	1.5	16.4	01	67	68
1707	1932-33	22-3-33	12	10	8.1	9.0	0.5	17.4	36	204	7660	5.25	13.02	12.4	80.3	906	12.4	103.2	2306	4	0.5	13.4	84	70	70
1707	1932-33	22-3-33	16A		..	..	..	..	121	175	7700	5.54	15.07	16.3	52.1	840	16.0	140.4	2342	5	0.5	15.5	85	71	71
1707	1932-33	22-2-32	16B		..	..	..	..	133	186	8700	5.53	16.97	16.1	65.9	1061	16.1	148.0	2383	5	0.5	16.4	86	70	70
2372	1933-34	7-7-34	14A	10	6.0	9.7	0.4	16.2	51	200	8266	5.37	14.08	14.1	85.0	1207	14.2	179.0	2532	4	0.5	14.0	87	71	78
2372	1933-34	0-7-34	16A		..	..	..	..	48	188	8200	5.37	15.97	16.2	67.3	1090	16.1	137.1	2553	4	0.8	15.5	85	73	78
2372	1933-34	0-7-34	16B		..	..	..	..	36	198	8850	5.57	16.97	16.2	78.0	1273	16.5	139.8	2307	4	0.8	16.3	86	70	78
2711	1934-35	12-6-35	11A	10	7.2	10.8	0.4	17.5	20	188	7000	5.55	14.08	14.2	76.8	1001	13.0	187.6	2668	4	1.8	14.7	00	68	70
2744	1934-35	13-6-35	16A		..	..	..	..	55	177	7000	5.43	15.97	16.0	70.9	1120	15.7	161.8	2540	5	2.0	15.4	91	67	82
2744	1934-35	13-6-35	16B		..	..	..	..	12	180	8200	5.54	16.97	15.7	83.0	1363	15.7	165.2	2564	5	1.5	16.4	90	68	82
3148	1935-36	24-4-36	10	10	6.0	0.8	0.4	16.3	0	108	6030	5.30	12.63	10.5	86.7	900	10.2	238.8	2436	4	0.5	12.1	88	66	70
3148	1935-36	23-4-36	14A		..	..	..	..	87	180	7450	5.43	14.08	14.2	55.1	782	14.1	181.6	2561	4	0.5	14.2	89	67	70
3148	1935-36	24-4-36	14B		..	..	..	..	68	200	8860	5.13	15.07	14.0	72.0	1035	14.3	175.2	2505	4	0.8	15.4	80	69	68
3508	1936-37	2-3-37	12	10	5.9	0.0	0.3	11.6	7	206	7800	4.22	13.02	12.1	106.0	1203	11.8	211.8	2553	3	0.8	13.5	83	67	69
3568	1936-37	20-2-37	14A		..	..	..	..	15	186	7700	5.55	14.08	13.0	80.2	1210	13.0	197.8	2690	4	0.8	14.7	83	67	68
3568	1936-37	20-2-37	16A		..	..	..	..	18	174	7760	5.74	15.07	16.3	61.2	1016	16.4	139.8	2593	4	1.0	15.2	84	68	67
3568	1936-37	27-2-37	16B		..	..	..	..	42	170	8060	5.61	16.97	16.4	78.0	1270	16.3	153.2	2497	4	1.2	16.3	84	67	67

\* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

#### 4.—KARUNGANNI COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1063	Karunganni	1930-31
2413	Karunganni	1933-34
2746	Karunganni (Cambodia Dt.)	1934-35
3271	Karunganni	1935-36

##### 1. Treatment :—

(a) *Blow-room*—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 and 1935-36 :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 and 1935-36 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

###### (a) Cotton :—

	KARUNGANNI			
	1930-31.	1933-34.	1934-35.	1935-36.
Colour .. ..	Creamy-white; fairly bright.	White to creamy-white; bright.	White; bright.	White to creamy-white; brightish.
Cleanliness .. ..	Fairly clean.	Fairly clean.	Fairly clean.	A little leafy.
Feel .. ..	Full-bodied.	Good smooth.	Good silky.	Good smooth.
Ginning and neppiness ..	A fair amount of knot and nep.	Well-ginned.	Well-ginned.	A little mottled.
Seeds .. ..	Some cut seed.	..	Few crushed seeds.	..
Card sliver .. ..	Almost clean.	Fairly clean.	Clean; soft.	Almost clean.
Card web .. ..	Somewhat neppy and cloudy.	..	A little neppy.	A trifle neppy.
Weight of 10 flat strips ..	16.4 grams.	23.0 grams.	26.0 grams.	18.0 grams.
Remarks .. ..	Fully-pressed.	..	..	..

###### (b) Yarn :—

	KARUNGANNI			
	1930-31.	1933-34.	1934-35.	1935-36.
Cleanliness .. ..	Fairly clean.	Almost clean.	Clean.	Little leafy.
Evenness .. ..	Fairly even.	Fairly even.	Even.	Fairly even.
Neppiness .. ..	Somewhat neppy.	A little neppy.	Neppy.	Somewhat neppy.
Slubbiness .. ..	..	A little slubby.	..	Occasionally slubby.
Remarks .. ..	..	..	..	..

3. *Spinning Test Details and Results* :—See Table 4 on page 90.

## II. GRADER'S REPORT\* FOR KARUNGANNI COTTON.

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—		1930-31.	1933-34.	1934-35.	1935-36.
Contract valued under	.. ..	Broach.	Broach.	July/August Broach.	Broach July/August.
Class	.. ..	Fine.	Fine.	Superfine.	Fine.
Colour	.. ..	White.	White.	Bright white.	White.
Staple Length	.. ..	5/8—1 inch.	15/16 inch.	7/8 inch.	13/16 inch.
Staple Strength	.. ..	Irregular.	Good.	Fair.	Fair.
Regularity	.. ..	Very irregular.	Good.	Slightly irregular.	Slightly irregular.
Value above or below contract rate	.. ..	Rs. 50 on.	Rs. 55 on Broach.	Rs. 55 on.	Rs. 30 on.
Basis	.. ..	Rs. 175.	Rs. 203 July-Aug. Broach.	Rs. 232.	Rs. 220.
Date of Valuation	.. ..	30-5-31.	9-7-34.	3-7-35.	1-7-36.
Remarks	.. ..	Valued on name only.	..	Somewhat soft.	..

\* Grader's Report for 1933-34 and 1935-36 is compiled by the mill supplying the sample.

Table 4.—SPINNING TEST RESULTS FOR KARUNGANNI COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	LEA.			BALISTIC.			Liverpool Class.	Neps per yard.	Turns per Inch Actual.		Springing Room.	Springing Room.	Testing Room.
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.							
1063	Karunganni.	1930-31	28-5-31	20	10	7.2	0.2	0.6	16.2	35	187	9400	0.38	17.98	10.8	60.1	1100	10.0	110.8	2205	4	5.2	17.2	90	68	69	
1063	Karunganni.	1930-31	28-5-31	24		..	..	..	..	44	174	9375	0.38	19.73	23.1	50.8	1173	23.7	94.8	2247	5	5.5	19.0	90	69	71	
2413	Karunganni.	1933-34	1-8-34	20	10	6.0	11.7	0.4	18.1	42	186	9000	0.10	17.98	20.1	67.2	1351	20.2	110.6	2355	4	2.2	16.7	83	81	86	
2413	Karunganni.	1933-34	1-8-34	24		..	..	..	..	77	168	8950	0.41	19.73	23.7	52.4	1242	23.5	100.2	2355	4	2.5	18.6	82	82	88	
2746	Karunganni.	1934-35	17-6-35	20	10	7.8	13.0	0.3	20.6	16	194	9500	0.07	17.98	20.0	89.0	1720	10.9	130.8	2782	4	4.8	17.5	89	66	82	
2746	Karunganni.	1934-35	17-6-35	24		..	..	..	..	23	170	9500	0.07	19.73	22.9	73.6	1685	23.0	119.4	2746	4	5.5	19.4	90	67	80	
3271	Karunganni.	1935-36	19-7-36	20	10	8.8	0.6	0.3	17.7	0	193	9700	5.08	17.98	20.2	74.4	1503	10.7	127.4	2510	4	4.0	17.4	87	70	72	
3271	Karunganni.	1935-36	10-7-36	24		..	..	..	..	18	174	9700	5.76	19.73	24.1	57.0	1389	21.1	101.0	2506	4	3.8	10.1	88	73	74	
3271	Karunganni.	1935-36	16-7-36	30	c	..	..	..	..	26	135	9600	0.07	21.86	29.7	42.0	1247	29.9	85.0	2542	5	3.2	21.1	88	73	72	

\* Diameter of ring frame front roller— $\frac{1}{4}$ ". Diameter of rings— $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

### 5.—NANDYAL COTTON.

These samples have been tested by arrangement with the Mill-owners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs).
1069	Nandyal .. .. .	1930-31	11
2751	„ (Northern Cambodia).	1934-35	10

#### I. SPINNING TESTS.

1. *Treatment*.—The 1930-31 sample was passed through the Porcupine, Crighton (twice), Hopper, Scutcher (3 times), Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving in Ring Frame No. 1. The 1934-35 sample was passed through the Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times) in the blow-room and was spun on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement; otherwise its treatment was the same as for the cotton of the other season.

#### 2. *Spinning Master's Report* :—

##### (a) *Cotton* :—

	NANDYAL.	
	1930-31.	1934-35.
Colour .. .. .	Creamy-white.	White to creamy-white.
Cleanliness .. .. .	Leafy (very fine leaf).	Slightly stained ; Leafy.
Feel .. .. .	Good ; soft.	Good.
Ginning and Neppiness .. .. .	Well-ginned ; a little neppy.	Well-ginned.
Seeds .. .. .	..	..
Card Sliver .. .. .	Clean.	Clean ; soft.
Card Web .. .. .	Trifle neppy.	Slightly neppy.
Weight of ten flat strips .. .. .	15.8 grams.	25.8 grams.
Remarks .. .. .	Staple regular in length and of good strength.	..

##### (a) *Yarn* :—

	NANDYAL.	
	1930-31.	1934-35.
Cleanliness .. .. .	Clean.	Clean.
Evenness .. .. .	Fairly even.	Fairly even.
Neppiness .. .. .	A little too neppy.	A little neppy (fine neps).
Slubbiness .. .. .	..	A trifle slubby.

3. *Spinning Test Details and Results* :—See Table 5 on page 92.

# II—GRADER'S REPORT\* FOR NANDYAL COTTON.

NANDYAL		1930-31.	1934-35.
Contract valued under	..	Broach.	Broach July/Aug.
Class ..	..	Barely fine.	Fine.
Colour ..	..	White.	Creamy.
Staple Length	..	15/16 inch.	7/8 inch.
Staple Strength	..	Good.	Good.
Regularity ..	..	Fair.	Fairly regular.
Value above or below contract rate	..	Rs. 45 on.	Rs. 60/on.
Basis ..	..	Rs. 160.	Broach July/Aug.
Date of Valuation	..	10-6-31.	26-6-35.
Remarks ..	..	..	..

\*Report for 1934-35 is supplied by the mill supplying the sample.

Table 5.—SPINNING TEST RESULTS FOR NANDYAL COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE ° F.	RELATIVE HUMIDITY. %			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Break-ages per 100 spindles per hour.	Front Roller Speed R. P. M.	Spindle Speed R. P. M.	Draft.	Turns per inch.	BALKISTO.			Revolutions Class.	Neeps per yard.	Turns per Inch Actual.	Spinning Room.		Testing Room.			
															Counts Actual.	Strength (lbs.)	Count-Strength Product.							Counts Actual.	Work of Rupture (inch-lbs.)	Count-Work Product.
1069	Nandyal	1930-31	4-6-31	24	10	10.5	9.2	0.0	9.1	18	180	9850	7.14	19.73	24.1	65.7	1583	24.5	110.8	2715	4	5.5	19.0	92	67	69
1069	Nandyal	1930-31	4-6-31	30	..	..	..	..	..	72	150	9300	7.29	21.86	31.0	42.3	1311	31.0	83.4	2660	5	5.0	21.1	92	71	63
1060	Nandyal	1930-31	4-6-31	24	..	..	..	..	..	40	142	9000	7.51	23.26	33.9	42.7	1405	33.9	90.0	2704	5½	5.7	22.5	92	69	67
2751	Nandyal	1934-35	24-6-35	20	10	8.9	12.9	0.6	21.0	5	180	8800	5.93	17.93	19.9	70.3	1399	20.0	118.6	2372	4	2.5	16.9	84	80	74
2751	Nandyal	1934-35	22-6-35	24A	..	..	..	..	..	27	186	8050	6.13	19.73	23.7	62.1	1235	23.8	100.6	2394	4	2.2	18.0	89	73	74
2751	Nandyal	1934-35	22-6-35	24B	..	..	..	..	..	50	186	10500	6.25	20.74	23.8	53.5	1392	23.8	101.8	2423	5	2.5	19.5	88	73	72

\* Diameter of ring frame front roller—7/8". Diameter of ring—1½".  
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions, it would be less than shown here.

## 6.—NORTHERN CAMBODIA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1064	Northern Cambodia (Kurnool) .. ..	1930-31
2747	Northern Cambodia (Kurnool) .. ..	1934-35
3272	Northern Cambodia .. ..	1935-36
3685	Northern Cambodia .. ..	1936-37

### I.—SPINNING TESTS.

#### 1. Treatment :—

- (a) *Blow-room*—1930-31 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).  
 1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*—1930-31 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.  
 1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band-drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :—

	NORTHERN CAMBODIA.			
	1930-31.	1934-35.	1935-36.	1936-37.
Colour .. ..	Creamy-white to creamy.	Creamy-white.	White to creamy-white.	Creamy-white to creamy
Cleanliness .. ..	Shows an occasional stain ; fairly clean.	Occasionally stained.	Fairly clean.	Leafy.
Feel .. ..	Full bodied.	Somewhat softish.	Smooth and softish.	Soft.
Ginning and neppiness ..	Somewhat knotted and nepped.	Fairly well-ginned.	Fairly well-ginned.	..
Seeds .. ..	1% ginned and unginned seeds.	..	..	A few ginned.
Card sliver .. ..	Clean.	Clean.	Clean and soft.	A little leafy.
Card web .. ..	Fairly good.	Good.	A little neppy.	Very neppy.
Weight of 10 flat strips ..	15.7 grams.	20.4 grams.	21.6 grams.	31.8 grams.
Remarks .. ..	..	..	..	..

##### (b) Yarn :—

	NORTHERN CAMBODIA.			
	1930-31.	1934-35.	1935-36.	1936-37.
Cleanliness .. ..	Fairly clean.	Almost clean.	Almost clean.	Fairly clean.
Evenness .. ..	Fairly even.	Fairly even.	Fairly even.	A little uneven.
Neppiness .. ..	Somewhat neppy.	Fairly neppy.	Neppy.	Very neppy.
Slubbiness .. ..	..	Somewhat slubby.	A little slubby.	..

#### 3. Spinning Test Details and Results :—See Table 6 on page 95.

## II.—GRADER'S REPORT\* FOR NORTHERN CAMBODIA.

NORTHERN CAMBODIA.									
1930-31.				1934-35.			1935-36.		
Contract valued under	..	..	..	Broach.	July/Aug. Broach.	Broach July/Aug.	July/Aug. Broach.	July/Aug. Broach.	1936-37.
Glass ..	..	..	..	Fine.	Fine.	F. G. to Fine.	Fully good.	Fully good.	
Colour ..	..	..	..	Slight-cream.	Brownish white; somewhat stained.	Creamy-white.	Brownish white.	Brownish white.	
Staple Length	..	..	..	7/8 inch.	Full 7/8 inch.	31/32 inch.	7/8 inch.	7/8 inch.	
Staple Strength	..	..	..	Fair.	Very good.	Fair.	Weak.	Weak.	
Regularity ..	..	..	..	Poor.	Regular.	Fairly regular.	Irregular.	Irregular.	
Value above or below contract rate	..	..	..	Rs. 35 on.	Rs. 65 on.	Rs. 35 on.	Rs. 10 on.	Rs. 10 on.	
Basis ..	..	..	..	Rs. 175.	Rs. 232.	Rs. 220.	Rs. 225.	Rs. 225.	
Date of Valuation	..	..	..	30-5-31.	3-7-35.	1-7-36.	28-6-37.	28-6-37.	
Remarks	..	..	..	..	..	..	..	..	

\* Report for 1935-36 and 1936-37 is made up by the mill supplying the sample.



Table 6.—SPINNING TEST RESULTS FOR NORTHERN CAMBODIA.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE. (°F.)	RELATIVE HUMIDITY. (%)	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle speed R.P.M.	Draft.	Turns per Inch.	LBS.				BALISTIC.		Reveresses Class.	Keps per yard.	Turns per Inch. Actual.	Spinning Room.	Spinning Room.			Testing Room.
															Counts Actual.	Strength lbs.	Count Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count Work Product.								
1004	Northern Cambodia ..	1930-31	29-5-31	20	10	8.3	8.7	0.4	16.6	25	187	9,400	6.25	17.98	20.1	1325	20.4	112.4	2293	4	6.2	17.4	90	68	70			
1004	Northern Cambodia ..	1930-31	28-5-31	24		..	..	..	..	20	174	9,375	6.25	10.73	23.1	1317	24.2	98.0	2372	5	4.0	18.9	90	68	70			
2747	Northern Cambodia ..	1934-35	18-6-35	20	10	7.3	10.6	0.4	17.5	10	195	9,550	6.07	17.98	19.9	1056	19.8	139.2	2756	4	3.2	17.3	87	75	73			
2747	Northern Cambodia ..	1934-35	18-6-35	24		..	..	..	..	18	181	9,800	5.65	19.73	23.7	1555	23.6	115.8	2733	4	4.2	19.1	80	70	70			
2747	Northern Cambodia ..	1934-35	18-6-35	30		..	..	..	..	17	100	9,000	6.94	21.86	29.1	1420	29.5	80.0	2555	5	3.2	21.2	88	71	70			
3272	Northern Cambodia ..	1935-36	13-7-30	20	10	7.8	11.5	0.3	18.7	10	193	9,700	6.10	17.98	20.9	1671	20.2	124.0	2517	4	4.0	17.1	80	73	72			
3272	Northern Cambodia ..	1936-36	17-7-36	24		..	..	..	..	0	178	9,700	5.70	19.73	23.0	1561	23.8	103.4	2461	4	5.5	18.9	88	73	72			
3272	Northern Cambodia ..	1936-30	17-7-36	30		..	..	..	..	13	150	9,700	7.11	21.80	30.3	1430	30.0	82.6	2552	5	5.0	20.9	88	77	75			
3085	Northern Cambodia ..	1936-37	5-7-37	20	10	12.0	18.4	0.0	28.5	10	194	9,400	0.25	17.98	10.0	1027	19.8	130.0	2574	4	10.5	17.3	87	75	80			
3085	Northern Cambodia ..	1936-37	6-7-37	24		..	..	..	..	32	177	9,300	5.43	19.73	24.2	1464	24.5	102.0	2499	5	10.8	19.1	80	70	79			
3085	Northern Cambodia ..	1936-37	6-7-37	30		..	..	..	..	17	144	8,500	0.58	21.86	28.8	1426	28.7	88.2	2531	0	12.2	21.0	80	78	85			

\* Diameter of ring frame front roller : 7/8". Diameter of rings : 1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 7.—BENGALS COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
912	Bengals.	Kasgunj	.. 1930-31	2667	Bengals.	Hansi	.. 1934-35
1602	"	Kosi	.. 1932-33	3030	"	Hansi	.. 1935-36
2106	"	Kosi	.. 1933-34	3438	"	Hansi	.. 1936-37

### I.—SPINNING TESTS.

#### 1. Treatment :—

(a) *Blow-room*.—Upto 1934-35 inclusive :—Porcupine, Crighton (twice), Hopper feeder, Scutcher (3 times); 1930-31 cotton was passed only once through the Crighton. 1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 inclusive :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. From 1934-35 onwards :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :

	BENGALS.					
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. ..	White to creamy-white.	Creamy-white ..	Creamy-white to creamy.	Creamy-white ..	White to creamy-white.	White to creamy-white.
Cleanliness .. ..	Fair; stained ..	Leafy; stained ..	Badly stained and leafy.	Badly stained; leafy.	Leafy; a little stained.	Leafy; slightly dusty; a little stained.
Feel .. ..	Dull; rough ..	Roughish ..	Fairly good ..	Softish.	Rough.	Rough.
Ginning and neppiness ..	Well-ginned (roller).	Somewhat knotted.	..	Fairly well-ginned.	Well-ginned.	Well-ginned.
Seeds .. ..	..	2.2% unginned ..	Contains a few seeds.	..	..	..
Card sliver .. ..	..	Almost clean ..	Clean ..	Fairly clean ..	Almost clean.	A little leafy.
Card web .. ..	..	Good ..	Good ..	Fairly good after easing the tension.	Good.	Good, almost free from neps.
Weight of 10 flat strips ..	..	22.5 grams.	19.9 grams.	20.3 grams.	21.0 grams.	18.4 grams.
Remarks .. ..	Fully pressed; a lot of fly in the Blow-room.	Well-watered; breakage excessive in GSA.	..	A poor sample ..	..	..

##### (b) Yarn :

	BENGALS.					
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness .. ..	Clean ..	Clean ..	Little leafy ..	Fairly clean.	Clean.	Clean and free of leaf.
Evenness .. ..	Very uneven ..	Fairly even ..	Fairly even in the lower count only.	Fairly uneven.	Uneven.	..
Neppiness .. ..	Free of nep ..	Almost nep-free ..	Free of nep ..	Free of nep.	Nep-free.	..
Slubbiness .. ..	Slubby ..	..	..	Slubby.	Somewhat slubby.	Rather slubby.

3. *Spinning Test Details and Results* :—See Table 7 on page 98.

## II. GRADER'S REPORT\* FOR BENGALS COTTON.

BENGALS.						
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under .. ..	Bengals.	Bengals.	Bengals.	Bengals.	Bengals.	Bengals.
Class .. ..	Fine.	Fully good.	Fully good.	Fully good.	Fully good M. G	Fully good M. G
Colour .. ..	White.	White.	Dull.	White.	Fairly white.	Fairly white.
Staple Length .. ..	5/8 inch.	11/16 inch.	3/8 inch.	3/8 inch.	1/2 inch.	9/16 inch.
Staple Strength .. ..	Good.	Fair.	Rather poor.	Fair.	Good.	Good.
Regularity .. ..	Good.	Fair.	Good.	Fair.	Good.	Fair.
Value above or below contract rate .. ..	Rs. 14 oz.	Rs. 10 oz.	Rs. 7 off.	Rs. 2 oz.	Rs. 10 oz.	Rs. 7 oz.
Basis .. ..	Rs. 130.	Rs. 108.	Rs. 143.	Rs. 151.	Rs. 148.	Rs. 104.
Date of Valuation .. ..	20-11-30.	..	22-1-31.	8-2-35.	4-1-36.	17-12-36.
Remarks .. ..	..	..	..	..	..	..

\* Report since 1933-34 is made up by the mill supplying the sample.

Table 7.--SPINNING TEST RESULTS FOR BENGALS COTTON.

Table 7.—SPINNING TEST RESULTS FOR BENGALS																										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning	Counts Nominal.	Weight of Sample. (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*					YARN TEST RESULTS.										TEMPERATURE. (°F.)	RELATIVE HUMIDITY (%)
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R. P. M.	Spindle Speed R. P. M.	Draft.	Turns per Inch.	TEST.			BALISTIC.			Reps per yard.	Turns per Inch Actual				
															Counts Actual.	Strength lbs.	Count-Strength Product.	Counts Actual.	Work of Rupture (Inch-lb.)	Count-Work Product.			Revolutions Class.			
912	Bengals ..	1930-31	26-11-36	6A	16	6.4	16.3	0.7	16.7	189	176	..	4.08	9.87	6.0	46.2	277	6.6	256.6	1559	6	1.7	0.4	82	87	64
912	Bengals ..	1930-31	25-11-36	8A		..	..	..	..	347	154	..	5.21	11.33	8.2	18.7	153	8.1	143.6	1163	7	1.6	16.7	83	67	69
1602	Bengals ..	1932-33	5-1-35	6A	16	13.8	15.2	0.6	27.3	123	175	4700	4.78	6.87	6.4	47.0	301	6.3	252.4	1596	4	1.0	6.1	79	76	74
1602	Bengals ..	1932-33	5-1-35	6C		..	..	..	..	205	183	5600	4.78	11.08	6.0	109.0	654	6.3	299.6	1887	4	1.2	16.6	79	69	72
2106	Bengals ..	1933-34	29-1-34	6A	16	12.5	14.3	0.2	25.2	6	186	4800	4.80	9.87	5.9	94.8	659	5.9	316.6	2041	4	0.8	9.5	82	67	74
2106	Bengals ..	1933-34	29-1-34	6C		..	..	..	..	0	186	5800	4.80	11.08	5.9	147.4	870	6.6	365.2	2191	5	1.6	16.7	86	68	68
2106	Bengals ..	1933-34	29-1-34	8B		..	..	..	..	87	185	6100	6.25	12.63	8.3	73.2	603	8.4	262.4	1761	6	0.8	12.2	80	69	74
2667	Bengals ..	1934-35	20-2-35	6B	16	14.1	14.8	0.6	27.3	191	183	5300	5.00	10.44	6.2	42.7	265	6.3	265.6	1295	4	1.6	10.2	79	68	76
2667	Bengals ..	1934-35	20-2-35	6C		..	..	..	..	136	193	5900	5.00	11.08	6.4	56.2	366	6.2	246.4	1523	4	1.2	10.8	80	67	63
2667	Bengals ..	1934-35	20-2-35	8B		..	..	..	..	234	152	5356	5.00	12.63	8.2	35.1	288	8.2	176.6	1443	5	1.2	12.3	80	66	72
3636	Bengals ..	1935-36	13-1-36	6B	16	13.5	15.6	0.3	26.7	136	176	5300	5.10	10.44	6.4	38.1	244	6.2	208.0	1260	5	0.2	10.1	77	66	66
3636	Bengals ..	1935-36	13-1-36	6C		..	..	..	..	122	192	6000	5.16	11.08	6.2	60.8	377	6.1	269.2	1642	5	0.2	10.6	79	67	64
3636	Bengals ..	1935-36	13-1-36	8B		..	..	..	..	240	152	5300	5.00	12.63	8.1	34.8	282	8.4	166.4	1347	5	0.5	12.1	79	66	66
3438	Bengals ..	1936-37	21-12-36	6B	9	12.8	15.3	0.4	26.4	55	182	5200	6.10	10.44	6.3	57.5	362	6.2	235.6	1461	5	0	9.9	82	61	69
3438	Bengals ..	1936-37	21-12-36	6C		..	..	..	..	14	183	5500	6.16	11.08	6.4	79.3	508	6.4	250.6	1661	5	0.5	16.6	82	61	72
3438	Bengals ..	1936-37	21-12-36	8B		..	..	..	..	44	146	5000	5.00	12.63	8.2	56.6	410	8.1	192.2	1614	5	0.5	12.6	79	62	76

\* Diameter of ring frame roller: 7/8". Diameter of rings: 1 5/8".

† It is to be noted that the total loss is for a small sample weighing 16 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

### 8.—KHANDESH COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
965	Khandesh	Yawal	.. 1930-31	1603	Khandesh	Saudha	.. 1932-33
1247	"	"	.. 1931-32	2105	"	"	.. 1933-34
967	"	Ranala	.. 1930-31	2603	"	"	.. 1934-35
1249	"	"	.. 1931-32	3031	"	"	.. 1935-36
968	"	Nimbora	.. 1930-31	3439	"	"	.. 1936-37
1250	"	"	.. 1931-32				

#### I. SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room*.—Upto 1934-35 inclusive: Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1935-36 and 1936-37:—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 inclusive: Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

###### (a) Cotton :—

	KHANDESH.										
	Yawal.		Ranala.		Nimbora.		Sandha.				
	1930-31.	1931-32.	1930-31.	1931-32.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour ..	White to creamy-white.	Creamy-white.	White to creamy-white; slightly bright.	Creamy-white.	White to creamy-white.	White to creamy-white.	Brightish creamy-white.	White to creamy-white; bright.	Dullish creamy-white.	White to creamy-white.	White to creamy-white.
Cleanliness ..	Slightly stained; leafy.	Slightly stained; leafy.	Occasional stain.	Occasional stain; leafy.	Leafy ..	Somewhat stained; leafy.	Somewhat leafy.	Somewhat leafy.	Very slightly stained; leafy.	Leafy; a trifle stained.	Leafy.
Feel ..	Somewhat roughish.	Fairly good feel.	..	Slightly rough in feel.	Good ..	Softish ..	Good ..	Smooth and bedded.	Good ..	Roughish.	Roughish.
Ginning and neppiness.	Well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.	Fairly knotted.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Not well-ginned.
Seeds ..	1% unginned seeds.	1.4% unginned seeds.	2.1% ginned and unginned.	1.8% unginned.	1.4% ginned.	1.4% ginned and unginned.	2.75% ginned and unginned.	A few seeds.	1.3% seeds ..	..	Quite a few seeds.
Card silver ..	Clean ..	Clean ..	Clean ..	Clean ..	..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	A little leafy
Card web ..	Nep-free ..	Nep-free and even.	Good ..	Free of nep..	..	Practically nep-free.	Good ..	Even and nep-free.	Good ..	Good ..	Good ..
Weight of flat strips.	15.2 grams ..	10.5 grams ..	15.3 grams ..	18.3 grams ..	..	18.5 grams ..	10.8 grams ..	15.4 grams ..	19.5 grams ..	18.6 grams ..	20.1 grams.
Remarks ..	Fully pressed; staple weak for its length.	..	Fully pressed.	..	Fully pressed.	..	..	..	..	..	..

###### (b) Yarn :—

	KHANDESH.											
	Yawal.		Ranala.		Nimbora.		Saudha.					
	1930-31.	1931-32.	1930-31.	1931-32.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Cleanliness	.. Clean	.. Clean	.. Clean	.. Almost clean	Clean	.. Clean	.. Clean	.. Clean	.. Clean	.. Clean	.. Clean	
Evenness	.. Even	.. Even	.. Even in the lower counts only.	.. Even to fairly even.	.. Even in lower count.	.. Fairly even..	.. Fairly even..	.. Even	.. Fairly even..	.. Fairly even.	.. Fairly even.	
Neppiness	.. Free of nep.	.. Free of nep.	.. Free of nep.	.. Practically free of nep	Nep-free	.. Almost free of nep.	.. Almost free of nep.	.. Free of nep..	.. Free of nep.	.. Nep-free	.. Free of nep.	
Slubbiness	.. ..	.. ..	.. ..	.. ..	.. ..	.. Occasional slub.	.. ..	.. ..	.. A little slubby	.. A little slubby	.. Occasional slub.	

##### 3. Spinning Test Details and Results :—See Table 8 on page 101.

## II.—GRADER'S REPORT\* FOR KHANDESH COTTON.

KHANDESH.											
Yawal.			Ranala.			Nimbora.			Saundha.		
1930-31.	1931-32.	1930-31.	1931-32.	1930-31.	1931-32.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.
Contract valued under .. ..	Oomra.	Oomra.	Fine.	Fully good.	Oomra.	Fully good.	Fine.	Oomra.	Oomra.	Oomra.	Oomra.
Class .. ..	Fully good.	Fully good.	Fine.	Fully good.	Fully good.	Fully good.	Fine.	Fully good to fine.	Fine.	Fine.	Fully good M.G.
Colour .. ..	White.	White.	White.	White.	White.	White.	White.	White.	White.	White.	Fairly white with creamish tint.
Staple Length .. ..	5/8 inch.	13/16 inch.	13/16 inch.	13/16 inch.	13/16 inch.	13/16 inch.	27/32 inch.	3/4 inch.	3/4 inch.	1 1/2 inch.	1 1/16 inch.
Staple Strength .. ..	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Very good.	Good.	Good.
Regularity .. ..	Fair.	Fair.	Good.	Fair.	Fair.	Fair.	Good.	Fair.	Good.	Good.	Fair.
Value above or below contract rate ..	Rs. 5 off.	Rs. 15 on.	Rs. 17 on.	Rs. 5 on.	Rs. 5 on.	Rs. 5 on.	Rs. 18 on.	Rs. 8 on.	Rs. 1 on.	Rs. 2 on.	Rs. 2 on.
Basis .. ..	Rs. 165.	Rs. 212.	Rs. 212.	Rs. 165.	Rs. 165.	Rs. 165.	Rs. 212.	Rs. 188.	Rs. 179.	Rs. 226.	Rs. 202.
Date of Valuation .. ..	5-2-31.	10-2-32.	10-2-32.	5-2-31.	5-2-31.	5-2-31.	10-2-32.	9-1-33.	22-1-34.	8-2-35.	17-12-36.
Remarks .. ..	..	..	..	..	..	..	..	..	..	..	..

\* Report since 1933-34 is made up by the mill supplying the sample.

Table 8. SPINNING TEST RESULTS FOR KHANDESH COTTON.

Sample No.	Cotton.	Season.	Date of Spinning	Counts Nominal.	Weight of Sample (lb.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPER. ACTUAL, (°F.).	Spinning Room.	Testing Room.		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss,†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	I.S.A.		BALLISTICS.		Neps per yard.				Turns per Inch Actual.	Evenness Class.
															Counts Actual.	Strength (lbs.).	Count-Strength	Work of Rupture (inch-lb.).						
965	Khandesh	1930-31	2-2-31	8	10	0.4	0.2	17.0	0	200	..	4.27	11.31	7.0	113.0	900	281.6	2253	3	1.2	11.0	80	71	60
966	Khandesh	1930-31	31-1-31	10A	..	..	..	..	10	184	..	6.42	12.63	10.0	72.0	720	201.8	2080	4	1.7	12.3	81	60	72
965	Khandesh	1930-31	2-2-31	10B	..	..	..	..	46	190	..	5.52	13.68	10.2	89.4	912	232.6	2340	5	2.0	13.2	80	70	67
1247	Khandesh	1931-32	2-2-32	8	10	10.5	11.3	0.4	20.0	44	0250	4.78	11.31	8.1	108.8	881	283.2	2324	3	1.0	10.0	80	70	68
1247	Khandesh	1931-32	1-2-32	10A	..	..	..	..	55	180	0300	5.21	12.63	10.0	77.1	771	221.2	2212	4	1.0	12.1	82	75	71
1247	Khandesh	1931-32	2-2-32	10B	..	..	..	..	45	183	0356	5.32	13.68	10.3	91.1	969	220.8	2290	4	1.0	13.0	82	76	66
967	Khandesh	1930-31	2-2-31	10	10	12.7	9.3	0.6	21.2	30	100	5.03	12.63	10.4	80.0	901	235.2	2370	1	1.2	12.2	80	73	67
967	Khandesh	1930-31	2-2-31	12	..	..	..	..	24	188	..	5.74	13.92	11.0	78.6	935	190.2	2354	5	1.5	13.4	83	67	68
967	Khandesh	1930-31	3-2-31	14	..	..	..	..	86	175	..	0.75	15.08	13.0	66.8	789	140.8	2026	0	1.6	14.8	82	69	67
1240	Khandesh	1931-32	2-2-32	12	10	11.3	10.8	0.5	21.3	29	183	0.28	13.92	11.0	87.1	1036	185.6	2246	3	1.8	13.6	82	66	67
1246	Khandesh	1931-32	2-2-32	14A	..	..	..	..	18	175	7200	0.50	15.08	13.0	71.6	974	147.2	2016	4	2.0	14.7	83	65	65
1240	Khandesh	1931-32	3-2-32	14B	..	..	..	..	55	185	7800	0.54	16.97	13.0	78.6	1002	150.8	2238	4	1.8	15.4	82	66	66
968	Khandesh	1930-31	2-2-31	10	10	12.3	10.2	0.7	21.8	106	..	5.51	12.63	10.4	81.2	918	239.0	2107	4	1.2	12.1	80	73	60
968	Khandesh	1930-31	2-2-31	12A	..	..	..	..	48	188	..	5.74	13.92	11.0	89.1	1031	202.1	2400	5	1.7	13.4	83	67	60
968	Khandesh	1930-31	2-2-31	14A	..	..	..	..	93	175	..	0.75	15.08	13.0	77.1	905	136.8	1912	0	2.0	14.5	82	68	65
1260	Khandesh	1931-32	2-2-32	12A	10	10.2	10.3	0.6	16.8	65	187	0.38	13.62	12.2	80.2	978	184.0	2350	4	0.8	13.5	82	69	71
1260	Khandesh	1931-32	4-2-32	14A	..	..	..	..	60	175	7300	0.38	15.08	13.8	86.0	911	174.4	2467	4	1.2	14.6	81	66	71
1663	Khandesh	1932-33	5-1-33	14B	10	12.3	10.5	0.6	22.0	138	189	0.44	13.92	12.2	71.1	1107	188.8	2336	4	1.2	13.6	80	70	74
1003	Khandesh	1932-33	5-1-33	14A	..	..	..	..	131	106	9060	0.19	14.08	13.6	91.0	830	157.2	2327	4	1.2	14.3	81	66	74
1003	Khandesh	1932-33	9-1-33	14B	..	..	..	..	51	180	7650	0.22	15.07	13.8	70.2	909	173.2	2290	4	1.2	15.6	80	69	72
2105	Khandesh	1933-34	27-1-34	12A	10	10.0	10.8	0.3	20.0	68	108	0.25	14.92	12.0	78.5	942	161.8	2358	3	0.5	13.4	81	68	72
2105	Khandesh	1933-34	27-1-34	14A	..	..	..	..	87	108	7090	0.13	14.08	13.0	83.8	887	193.2	2317	4	0.6	11.5	81	67	72
2105	Khandesh	1933-34	27-1-34	14B	..	..	..	..	68	176	7750	0.13	15.07	11.0	75.9	1003	170.8	2374	4	0.8	15.4	81	67	70
2063	Khandesh	1934-35	15-2-35	10	10	10.3	10.0	0.4	20.4	27	109	0.60	12.63	10.2	70.3	896	223.2	2307	1	1.0	12.6	80	69	68
2063	Khandesh	1934-35	16-2-35	12A	..	..	..	..	30	100	0200	5.21	13.92	11.0	61.7	734	183.2	2250	5	0.8	13.2	70	67	68
2063	Khandesh	1934-35	16-2-35	12B	..	..	..	..	14	183	7300	5.21	14.63	12.1	74.3	899	187.0	2280	5	1.0	14.2	79	69	68
3031	Khandesh	1935-36	14-1-36	10	10	10.2	10.3	0.3	31.4	36	197	5.06	13.63	10.4	72.4	753	201.0	2081	4	0.8	12.0	70	66	62
3031	Khandesh	1935-36	14-1-36	12A	..	..	..	..	20	170	6200	5.55	13.92	12.0	66.5	678	178.4	2123	4	0.5	13.5	70	67	65
3031	Khandesh	1935-36	14-1-36	12B	..	..	..	..	20	182	7300	5.08	11.68	12.3	67.0	786	183.2	2253	1	0.5	14.2	80	68	68
3430	Khandesh	1936-37	21-12-36	10A	10	10.5	10.9	0.4	22.3	55	181	5.40	12.63	10.4	18.2	591	181.6	1852	4	0.6	12.1	79	63	70
3430	Khandesh	1936-37	21-12-36	10B	..	..	..	..	36	193	7300	6.40	13.68	10.3	68.0	707	101.0	2018	4	0.8	13.1	70	63	68
3430	Khandesh	1936-37	21-12-36	12B	..	..	..	..	80	183	7800	5.40	14.68	12.1	19.2	505	103.2	2007	1	0.8	11.4	70	63	71

\* This table is not to be used for cotton from other countries.

## 9(a).—UJJAIN COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first rivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
969	Ujjain	Ujjain	.. 1930-31	2664	Ujjain	Ujjain	.. 1934-35
1251	"	"	.. 1931-32	3028	"	"	.. 1935-36
1670	"	"	.. 1932-33	3453	"	"	.. 1936-37
2107	"	"	.. 1933-34				

## I.—SPINNING TESTS.

## 1. Treatment :—

- (a) *Blow-room*—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1935-36 and 1936-37:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

## 2. Spinning Master's Report :—

## (a) Cotton :—

		UJJAIN (UJJAIN).						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	..	Creamy-white.	Creamy white; slightly bright.	White ..	White to creamy white; brightish.	Creamy-white.	White.	White.
Cleanliness	..	Fairly leafy	Occasional stain; fairly leafy.	Leafy ..	Occasional stain; somewhat leafy.	Occasionally stained; leafy	Leafy; a little stained.	Leafy.
Feel	..	Good ..	Good ..	Soft and fairly good.	Good smooth ..	Smooth ..	Good.	Good.
Ginning and neppiness.	..	A good deal knotted.	Fairly well-ginned.	Somewhat knotted and nepped.	Well-ginned ..	Well-ginned ..	Well-ginned.	..
Seeds	..	1.9% unginned.	2% ..	..	Contains a few unginned seeds.	Contains 1.3% seeds.	Contains 78 % full clean seeds.	2.44%
Card sliver	..	..	Almost clean ..	Almost clean ..	Clean ..	Clean ..	Fairly clean.	Leafy.
Card web	..	..	Nep-free; a trifle cloudy.	Good ..	Even and nep-free.	Good ..	Web good.	A little neppy.
Weight of 10 flat strips.	..	..	19.8 grams	17.7 grams	18.5 grams	20.0 grams	17.1 grams.	..
Remarks	..	Staple irregular and weak.	..	Slightly watered.	..	..	..	..

## (b) Yarn :—

		UJJAIN (UJJAIN).						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	..	Clean ..	Fairly clean ..	Almost clean ..	Clean ..	Almost clean ..	Clean.	Fairly clean.
Evenness	..	Fairly even in lower counts.	..	Even in two lower counts.	Even ..	Even ..	Even.	Even in the lower count only.
Neppiness	..	Fairly free of nep.	Somewhat neppy.	Practically free of nep.	Nep-free ..	Fairly free of nep.	Nep-free.	Fairly free of nep.
Slubbiness	..	A little slubby.	Slubby ..	A trifle slubby.	..	..	..	..
Remarks	..	..	..	..	..	..	..	..

## 3. Spinning Test Details and Results :—See Table 9(a) on page 104.



## II.—GRADER'S REPORT\* FOR UJJAIN COTTON.

UJJAIN (UJJAIN).									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under	.. ..	Broach.	Broach.	Broach.	Broach.	Broach.	Oomra.	Oomra.	
Class	.. ..	Fully good.	Fully good to fine.	Fully good.	Fully good.	Fully good.	Fully good.	Fully good M.G.	
Colour	.. ..	White.	White.	Whitish.	White.	White.	Fairly white.	Dull.	
Staple Length	.. ..	$\frac{3}{4}$ inch.	$\frac{3}{4}$ inch.	$\frac{1}{2}$ inch.	$\frac{1}{2}$ inch.	$\frac{3}{8}$ inch.	$\frac{3}{8}$ inch.	$\frac{3}{4}$ inch.	
Staple Strength	.. ..	Fair.	Fair.	..	Fair.	Good.	Good.	Fairly good.	
Regularity	.. ..	Fair.	Good.	Irregular.	Very fair.	Fair.	Good.	Fairly good	
Value above or below contract rate	.. ..	Rs. 10 off.	Rs. 20 on.	Rs. 5 off.	Rs. 5 off.	Rs. 20 on.	Rs. 18 on.	Rs. 1 on.	
Basis	.. ..	Rs. 200.	Rs. 220.	Broach F. G. April-May 1933.	Rs. 199.	Rs. 252.	Rs. 201.	Rs. 208.	
Date of Valuation	.. ..	5-2-31.	10-2-32.	..	22-1-34.	8-2-35.	4-1-36.	30-12-36.	
Remarks	.. ..	..	..	Silky with fine fibres; leafy.	..	..	..	..	

\* Report since 1932-33 is made up by the mill supplying the sample.

Table 9(a)—SPINNING TEST RESULTS FOR UJJAIN COTTON.

Sample No.	Cotton.	Season.	Drive of Spinning.	Counts Nominal.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE AND HUMIDITY (%).	
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch.	L.E.A.			BALISTIC.			Knots per yard.	Turns per inch Actual.	Spiraling Room.	Spiraling Room.	RELATIVE HUMIDITY (%).
														Counts Actual.	Strength (lbs.)	Count Strength	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.					
969	Ujjain ..	1930-31	3-2-31	10	11.1	10.1	0.2	20.2	0	104	..	5.21	12.03	0.0	125.0	1237	10.0	247.2	2472	3	2.0	12.2	81	68
969	Ujjain ..	1930-31	3-2-31	12	..	..	..	..	8	189	..	5.43	13.02	12.1	90.7	1097	12.0	107.6	2371	4	2.5	13.0	81	60
969	Ujjain ..	1930-31	3-2-31	14	..	..	..	..	7	176	..	6.28	15.08	13.7	70.5	1080	13.0	154.4	2140	6	2.5	14.0	82	74
1251	Ujjain ..	1931-32	3-2-32	12	10.0	11.4	0.5	21.6	44	187	7250	6.22	13.02	12.1	87.1	1054	11.8	100.0	2312	4	2.0	13.3	82	71
1251	Ujjain ..	1931-32	4-2-32	14A	..	..	..	..	42	175	7300	6.38	15.08	13.5	80.1	1081	13.0	173.2	2350	5	1.2	14.5	81	60
1251	Ujjain ..	1931-32	4-2-32	14B	..	..	..	..	42	183	7800	6.41	15.07	13.4	91.3	1223	13.8	169.4	2388	5	2.2	15.3	81	60
1670	Ujjain ..	1932-33	23-2-33	12	11.9	0.6	0.4	20.6	7	190	7350	6.55	13.02	11.9	100.1	1101	12.2	205.2	2503	3	1.8	13.0	83	70
1670	Ujjain ..	1932-33	24-2-33	14	..	..	..	..	80	109	8300	6.58	15.07	14.3	84.3	1205	14.1	178.4	2515	4	1.2	15.0	82	72
2107	Ujjain ..	1933-34	30-1-34	10	11.1	10.8	0.2	20.8	0	502	7000	5.42	12.63	10.0	188.7	1587	10.1	280.4	2832	3	0.8	12.2	79	67
2107	Ujjain ..	1933-34	29-1-34	12A	..	..	..	..	0	197	7450	5.32	13.92	11.8	133.7	1378	12.0	236.4	2830	3	0.5	13.4	80	72
2107	Ujjain ..	1933-34	29-1-34	12B	..	..	..	..	7	200	8000	5.43	14.68	12.1	136.3	1049	12.0	243.2	2018	3	0.5	14.2	79	72
2107	Ujjain ..	1933-34	1-2-34	14	..	..	..	..	51	193	8200	6.34	15.07	14.3	108.3	1520	14.1	188.8	2662	4	0.6	15.4	82	68
2664	Ujjain ..	1934-35	18-2-35	12	10.4	11.1	0.2	20.6	0	200	7600	5.32	13.02	12.2	120.4	1400	12.0	237.2	2846	3	2.0	13.3	70	68
2664	Ujjain ..	1934-35	18-2-35	14A	..	..	..	..	7	182	7600	5.10	14.08	14.3	99.0	1424	14.1	202.0	2848	4	1.5	14.8	80	70
2664	Ujjain ..	1934-35	18-2-35	14B	..	..	..	..	0	192	8200	5.10	15.07	14.0	111.2	1557	14.1	203.0	2871	4	2.0	15.5	80	68
2664	Ujjain ..	1934-35	22-2-35	10	..	..	..	..	36	180	7000	5.95	15.07	15.4	99.0	1141	16.6	165.2	2742	5	1.8	15.5	80	71
3028	Ujjain ..	1935-36	10-1-36	12	11.6	11.4	0.2	21.8	0	108	7550	5.30	13.02	11.0	121.0	1404	12.2	220.8	2707	4	0.5	13.0	79	70
3028	Ujjain ..	1935-36	11-1-36	14A	..	..	..	..	15	180	8350	5.30	14.08	11.3	95.8	1327	14.2	100.4	2704	4	0.5	14.8	78	65
3028	Ujjain ..	1935-36	11-1-36	14B	..	..	..	..	29	180	8000	5.30	15.07	14.3	110.2	1570	14.0	202.4	2834	4	0.8	15.6	78	64
3453	Ujjain ..	1936-37	5-1-37	12	8	14.6	0.6	27.6	22	197	7600	5.43	13.92	12.8	83.2	800	12.7	188.4	2393	3	1.0	13.5	81	68
3453	Ujjain ..	1936-37	5-1-37	14A	..	..	..	..	22	186	7600	5.32	14.08	14.4	58.6	815	14.9	166.4	2470	4	1.0	14.6	80	72
3453	Ujjain ..	1936-37	5-1-37	14B	..	..	..	..	30	184	8000	5.32	15.07	14.0	79.6	1114	14.5	195.4	2045	5	1.6	15.7	70	72

\* Diameter of ring frame front roller: 1". Diameter of rings: 1 1/2".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

### 9(b).—UJJAIN COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample Cotton. No.	Place.	Season.	Sample Cotton. No.	Place.	Season.
966	Ujjain	Sujalpur	2146	Ujjain	Mandsaur
1248	"	"	2666	"	"
970	"	Mandsaur	3064	"	"
1601	"	"	3454	"	"

#### I.—SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room* :—Upto 1934-35 inclusive :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room* :—Upto 1933-34 inclusive :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

###### (a) Cotton :—

	UJJAIN (SUJALPUR).		UJJAIN (MANDSAUR).					
	1930-31.	1931-32.	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour ..	White to creamy-white.	Creamy-white.	Creamy-white.	White; brightish.	White to creamy-white; brightish.	White.	White to creamy-white.	Creamy-white to white.
Cleanliness ..	Leafy; somewhat stained.	Fairly leafy; a good deal stained.	Leafy; stained.	Somewhat leafy.	Fairly clean.	Fairly leafy.	Somewhat leafy; a little stained.	Leafy; a little stained.
Feel ..	..	Softish.	Goodish.	Roughish.	Good.	Good.	Roughish.	Fair.
Ginning and neppiness.	Fairly well-ginned.	Fairly well-ginned.	Fairly well-ginned.	Good.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds ..	1.6 % unginned.	1.25 % mainly unginned.	2 % unginned.	3 % unginned.	..	Contains 2.9 % seeds and kapas.	..	0.91 %.
Card sliver ..	Comparatively clean.	Almost clean.	..	Clean.	Clean.	Clean.	Fairly clean.	Contains a little leaf.
Card web ..	First class ..	Slightly neppy.	..	Fairly good; considerable fly shedding.	Good.	Good.	Good.	A little leafy but free from nep.
Weight of 10 flat strips.	17.2 grams ..	22.1 grams ..	..	20.1 grams ..	15.7 grams ..	19.6 grams ..	18.4 grams.	19.5 grams.
Remarks ..	Fully-pressed	..	..	Excessive yarn breakage.	..	..	..	..

###### (b) Yarn :—

	UJJAIN (SUJALPUR).		UJJAIN (MANDSAUR).					
	1930-31.	1931-32.	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Clean.	Fairly clean.	Clean.	Clean.	Clean.	Almost clean.	Clean.	A little leafy.
Evenness ..	Even.	Fairly even.	Fairly even.	Fairly even.	Even in two lower counts.	Fairly even.	Even.	Fairly even.
Noppiness ..	Fairly free of nep.	A little neppy.	..	Almost nep-free.	Free of nep.	Practically nep-free.	Free of nep.	Almost free of nep.
Slubbiness ..	..	..	..	..	..	..	A little slubby.	..
Remarks ..	..	..	A little leafy.	..	..	..	..	..

3. *Spinning Test Details and Results* :—See Table 9(b) on page 107.

## II.—GRADER'S REPORT\* FOR UJJAIN COTTON.

		UJJAIN (SUGALPUR).				UJJAIN (MANDSAUR).			
		1930-31.	1931-32.	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	..	Broach.	Broach.	Broach.	Oomra.	Oomra.	Broach.	Oomra.	Oomra.
Class	..	Fully good.	Fully good to fine	Fully good.	Fine.	Fine.	Fully good.	Fully good.	Fully good M.G.
Colour	..	White.	White.	White.	White.	White.	White.	Dull white.	White.
Staple Length	..	$\frac{7}{8}$ inch.	$\frac{11}{16}$ inch.	$\frac{7}{8}$ inch.	$\frac{3}{4}$ inch.	$\frac{31}{32}$ inch.	$\frac{13}{16}$ inch.	$\frac{11}{16}$ inch.	$\frac{1}{4}$ inch.
Staple Strength	..	Fair.	Fair.	Fair.	Fair.	Fair.	Good.	Fair.	Fairly good.
Regularity	..	Fair.	Good.	Fair.	Fair.	Fair.	Fair.	Irregular.	Fairly good.
Value above or below contract rate.	..	Rs. 10 off.	Rs. 20 on.	Rs. 10 off.	Rs. 10 on.	Par.	Rs. 5 on.	Rs. 5 on.	Rs. 3 off.
Basis	..	Rs. 200. .	Rs. 220.	Rs. 200.	Rs. 188.	Rs. 183.	Rs. 252.	Rs. 182.	Rs. 208.
Date of Valuation	..	5-2-31.	10-2-32.	5-2-31.	..	15-2-34.	8-2-35.	30-1-36.	30-12-36.
Remarks	..	..	..	..	..	..	..	..	..

\* Report since 1932-33 is made up by the mill supplying the sample.

Table 9(b)—SPINNING TEST RESULTS FOR UJJAIN COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE. (°F.)	RELATIVE HUMIDITY (%).				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch.	L.E.A.		BALLISTIC.		Evenness Class.			Keps per yard.	Turns per inch Actual.	Spinning Room.	Spinning Room.
															Counts Actual.	Strength (lbs.)	Counts Actual.	Work (Inch-lb.) of Count-Work Product.							
900	Sulajpur	1930-31	31-1-31	10	10	10.3	9.7	0.4	19.3	10	190	5.42	12.03	125.5	10.1	249.0	2521	3	1.2	12.3	81	88	04		
900	"	1930-31	31-1-31	12	12	"	"	"	"	24	180	5.10	13.02	124.7	11.7	205.2	2401	4	1.5	13.6	81	89	71		
900	"	1930-31	31-1-31	14	14	"	"	"	"	40	174	0.07	15.08	100.7	14.3	159.2	2277	5	2.0	14.8	80	88	09		
1248	Sulajpur	1931-32	2-2-32	12	10	11.0	12.2	0.0	22.8	65	188	0.25	13.92	108.2	12.1	194.8	2350	4	3.5	13.0	82	80	06		
1248	"	1931-32	2-2-32	14A	"	"	"	"	"	24	175	0.54	15.08	115.5	13.9	160.8	2218	4	3.0	14.5	83	88	06		
1248	"	1931-32	3-2-32	14B	"	"	"	"	"	36	185	0.58	15.97	132.0	14.1	107.2	2358	4	2.8	16.6	82	80	05		
070	Mandaur	1930-31	3-2-31	10	10	13.1	9.9	0.5	22.1	110	194	5.10	12.03	114.7	10.1	230.4	2327	4	2.5	12.3	81	85	68		
070	"	1930-31	3-2-31	12	"	"	"	"	"	10	180	5.32	13.02	107.0	11.8	190.4	2247	5	2.7	13.6	81	87	67		
070	"	1930-31	3-2-31	14	"	"	"	"	"	33	170	0.13	15.08	81.8	14.2	140.0	2124	0	2.5	14.0	82	70	75		
1001	Mandaur	1932-33	4-1-33	10	10	12.8	12.0	0.0	23.8	73	184	5.31	12.03	71.1	10.0	190.8	1968	4	1.0	12.1	80	89	72		
1001	"	1932-33	4-1-33	12A	"	"	"	"	"	102	170	5.42	13.02	630	11.0	160.2	2013	5	1.0	13.4	82	87	74		
1001	"	1932-33	5-1-33	12B	"	"	"	"	"	87	177	5.52	14.08	750	12.3	180.4	2119	5	1.2	14.1	80	87	74		
2140	Mandaur	1933-34	10-2-34	10	10	8.0	10.8	0.3	10.0	65	108	5.21	12.03	94.2	10.0	203.0	2636	3	0.8	12.2	83	80	72		
2140	"	1933-34	20-2-34	12	"	"	"	"	"	15	160	5.53	13.02	906	12.1	205.2	2483	3	0.8	13.5	81	80	72		
2140	"	1933-34	20-2-34	14	"	"	"	"	"	68	178	6.10	13.07	1018	14.4	104.4	2367	5	1.0	15.5	81	70	72		
2006	Mandaur	1934-35	19-2-35	10	10	12.7	10.3	0.3	21.9	0	202	6.12	12.03	1107	9.0	256.8	2542	4	1.0	12.0	81	89	00		
2006	"	1934-35	10-2-35	12	"	"	"	"	"	15	100	5.33	13.92	1000	12.4	198.8	2405	5	1.2	13.5	79	89	09		
2006	"	1934-35	18-2-35	14	"	"	"	"	"	51	186	0.15	15.07	1150	14.1	174.0	2453	5	1.2	16.4	80	88	07		
3004	Mandaur	1935-36	4-2-30	8A	10	0.4	13.4	0.3	21.7	33	186	5.00	11.31	454	8.2	196.0	1007	3	0.8	11.2	81	72	08		
3064	"	1935-36	4-2-30	8B	"	"	"	"	"	33	192	5.20	12.07	886	8.2	248.8	2040	3	0.8	12.2	82	80	05		
3064	"	1935-36	4-2-30	10B	"	"	"	"	"	27	174	5.44	14.29	736	10.0	208.0	2080	4	0.5	14.5	70	85	08		
3464	Mandaur	1936-37	5-1-37	8A	10	10.0	13.3	0.4	22.3	22	182	5.10	11.31	490	8.0	211.2	1816	4	0.5	11.0	81	86	00		
3464	"	1936-37	7-1-37	8B	"	"	"	"	"	22	192	3.05	12.07	874	8.1	288.8	2330	4	0.8	11.7	80	84	72		
3464	"	1936-37	6-1-37	10A	"	"	"	"	"	64	188	4.89	13.58	740	10.1	208.8	2100	4	0.8	13.2	81	81	74		
3464	"	1936-37	6-1-37	10B	"	"	"	"	"	18	180	4.89	14.20	980	10.1	219.6	2218	4	0.5	13.0	80	80	01		

\* Diameter of ring frame front roller:  $\frac{3}{8}$ ". Diameter of rings: 14".  
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 10.—MOGLAI COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Weight (lbs.)
1604	Moglai	Partur	1932-33	11
2145	"	Partur	1933-34	9
2665	"	Partur	1934-35	12
3029	"	Partur	1935-36	11
3458	"	Partur	1936-37	11½

### I.—SPINNING TESTS.

#### 1. Treatment :—

(a) *Blow-room*.—Up to 1934-35 (inclusive) :—Porcupine, Crighton (twice), Hopper feeder, Scutcher (3 times). 1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust-trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1 1934-35 onwards :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :—

	MOGLAI				
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. ..	Creamy-white.	White to creamy-white.	Dullish white to creamy-white.	White to creamy-white; brightish.	Creamy-white to white; darkish tinge.
Cleanliness ..	Leafy.	Leafy.	Leafy.	Leafy.	A trifle stained.
Feel .. ..	Good.	Good roughish.	Good.	Good.	Fair.
Ginning and Neppiness ..	Good.	Well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.
Seeds .. ..	2% small size, ginned, partly ginned and unginned.	1.1% unginned.	..	..	..
Card sliver ..	Almost clean.	Good.	Clean.	Clean.	Good; slightly leafy.
Card web ..	Good.	Good.	Good.	Even and nep-free.	Good but a little leafy.
Weight of 10 flat strips ..	17.9 grams.	15.9 grams.	20.4 grams.	13.7 grams.	..
Remarks .. ..	Spots of stain and unripe fibres noticeable.	8 lb. sample.	..	..	..

##### (b) Yarn :—

	MOGLAI				
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness .. ..	Clean.	Clean.	Clean.	Fairly clean.	A little leafy.
Evenness .. ..	Even.	Somewhat uneven.	Fairly even.	Even in the lower counts.	Fairly even.
Neppiness .. ..	Practically nep-free.	Free of nep.	Almost free of nep.	Free of nep.	Almost free of nep.
Slubbiness .. ..	..	..	A little slubby.	A little slubby.	..
Remarks .. ..	..	..	..	..	..

3. *Spinning Test Details and Results*.—See Table 10 on page 110.

## II.—GRADER'S REPORT\* FOR MOGLAI COTTON.

		MOGLAI.				
		1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	.. ..	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.
Class .. ..	.. ..	Fine.	Fine.	Fine.	Fully good.	Fully good M. G.
Colour .. ..	.. ..	White.	Dull white.	White.	Fairly white.	Dull white.
Staple Length ..	.. ..	$\frac{3}{4}$ inch.	$\frac{3}{4}$ inch.	$\frac{3}{4}$ inch.	$\frac{3}{4}$ inch.	$\frac{11}{16}$ inch.
Staple Strength ..	.. ..	Fair.	Fair.	Fair.	F. Good	Good.
Regularity .. ..	.. ..	Fair.	Fair.	Fair.	Good.	Good.
Value above or below contract rate	.. ..	Rs. 10 on.	Rs. 10 off.	Rs. 5 on.	Rs. 3 on.	Rs. 2 on.
Basis .. ..	.. ..	Rs. 188.	Rs. 183.	Rs. 220.	Rs. 201.	Rs. 208.
Date of Valuation ..	.. ..	9-1-33.	15-2-34.	8-2-35.	4-1-36.	8-1-37.
Remarks .. ..	.. ..	..	..	..	..	..

\* Report since 1933-34 is made up by the mill supplying the sample.

Table 10.—SPINNING TEST RESULTS FOR MOGLAI COTTON.

Table 10.—SPINNING TEST RESULTS FOR THE YEAR 1934-35																										
Sample No.	Cotton.	Season.	Date of Spinning	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE. (°F)		RELATIVE HUMIDITY (%)		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss,†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R. P. M.	Spindle Speed R. P. M.	Draft.	Turns per inch.	Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lbs.)	Count-Work Product.	Evenness class.	Keps per yard.	Turns per inch. Actual.	Spinning Room.	Spinning Room.	Testing Room.
1004	Mogral	1932-33	0-1-33	10A	10	11.9	10.3	0.0	21.4	73	182	6250	5.32	12.03	10.0	92.7	927	10.0	220.1	2201	4	1.2	12.0	81	70	74
1004	"	1932-33	0-1-33	12A						95	185	7100	5.33	13.92	11.0	78.7	913	12.0	184.8	2218	4	1.5	13.3	80	70	74
1004	"	1932-33	9-1-33	12B						102	100	7500	5.43	14.03	11.0	92.2	1070	11.7	106.4	2203	4	1.2	14.3	80	70	72
2145	Mogral	1933-34	19-2-34	10A	8	11.3	13.6	0.4	23.6	18	193	6300	5.21	12.03	10.0	89.4	894	10.1	231.0	2339	4	1.0	12.2	83	09	72
2145	"	1933-34	20-2-34	12A						68	190	7200	5.53	13.92	11.0	67.5	803	11.9	188.0	2237	5	0.8	13.5	81	06	71
2145	"	1933-34	20-2-34	12B						95	105	7700	5.53	14.03	12.0	84.4	1013	12.1	184.4	2231	5	1.5	14.2	81	08	72
2065	Mogral	1934-35	19-2-35	10A	10	9.7	10.6	0.5	19.6	27	202	6950	5.24	12.03	10.3	77.1	797	10.0	230.4	2304	1	1.8	12.1	80	07	08
2065	"	1934-35	19-2-35	12A						87	180	7000	5.38	13.92	12.4	51.9	644	12.4	175.2	2172	5	1.0	13.4	80	08	68
2065	"	1934-35	19-2-35	12B						36	188	7500	5.38	14.03	12.4	68.1	848	12.3	184.4	2263	5	1.2	14.2	91	09	70
3029	Mogral	1935-36	11-1-36	8	10	12.0	11.4	0.2	22.3	44	208	7000	5.00	11.31	8.2	105.4	864	8.5	280.1	2363	3	0.5	10.9	70	05	66
3029	"	1935-36	13-1-36	10A						9	198	7000	5.10	12.03	10.0	87.9	879	10.0	274.4	2344	4	0.9	12.1	76	03	67
3029	"	1935-36	17-1-36	10B						36	204	7500	5.10	13.58	10.2	109.3	1115	10.0	240.8	2408	4	0.5	13.0	76	01	61
3029	"	1935-36	13-1-36	12B						36	193	7500	5.98	14.03	11.8	84.4	996	11.7	109.0	2335	5	0.5	14.0	77	04	66
3458	Mogral	1936-37	15-1-37	8	10	11.9	11.3	0.4	22.2	0	198	6300	4.04	11.31	8.0	108.5	803	7.9	306.0	2417	3	0.2	10.7	80	05	70
3458	"	1936-37	12-1-37	10A						0	190	6500	5.10	12.03	10.2	60.2	676	10.4	292.4	2103	4	0.2	12.0	81	04	70
3458	"	1936-37	12-1-37	12A						100	184	7150	5.81	13.92	11.8	56.5	637	11.5	188.4	2167	4	0.5	13.4	79	04	69
3458	"	1936-37	13-1-37	12B						87	101	7000	6.25	11.03	12.4	57.2	709	12.7	170.4	2104	5	0.5	14.2	80	02	72

\* Diameter of ring frame front roller—K". Diameter of ring—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.



## 11.—WESTERNS COTTON.

These samples have been tested by arrangements with the Millowner's Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
2254	Westerns	Guntakal	1933-34.
2749	Westerns	Guntakal	1934-35.
3151	Westerns	Guntakal	1935-36.
3686	Westerns	Raichur	1936-37.

### I.—SPINNING TESTS.

#### 1. Treatment :—

(a) *Blow-room.*—1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

(a) *Cotton* :—

—	WESTERNS.			
	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. .. .	White to creamy-white; bright.	White to creamy-white; brightish.	White to creamy-white; dullish.	Creamy-white to creamy.
Cleanliness .. .. .	Leafy.	Leafy.	Leafy.	Leafy.
Feel .. .. .	Good.	Good smooth.	Good.	Soft.
Ginning and neppiness ..	Well-ginned.	A trifle knotted.	Well-ginned.	Good.
Seeds .. .. .	1.7% partly-ginned.	....	....	....
Card Sliver .. .. .	Clean.	Clean.	Almost clean.	Leafy.
Card Web .. .. .	Even and nep-free.	Even and nep-free.	Good.	Fair; a little neppy.
Weight of 10 flat strips ..	13.8 grams.	18.2 grams.	13.6 grams.	23.6 grams.
Remarks .. .. .	....	....	....	....

(b) *Yarn* :—

—	WESTERNS.			
	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness .. .. .	Almost clean.	Clean.	Almost clean.	Fairly leafy.
Evenness .. .. .	Fairly even.	Fairly even.	Fairly even.	Fairly even.
Neppiness .. .. .	Free of nep.	Almost free of nep.	Almost free of nep.	Almost free of nep.
Slubbiness .. .. .	....	....	....	....

3. *Spinning Test Details and Results* :—See Table 11 on page 113.

## II.—GRADER'S REPORT\* FOR WESTERNS COTTON.

WESTERNS.									
				1933-34.	1934-35.	1935-36.	1936-37.		
Contract valued under	..	..	..	Broach.	July/Aug. Broach.	Broach April/May.	July/Aug. Broach.		
Class .. ..	..	..	..	Strict fine.	Fine.	Fine.	Fully good.		
Colour .. ..	..	..	..	White.	White.	Brownish white.	Brownish white.		
Staple Length ..	..	..	..	31/32 inch.	Barely 13/16 inch.	20/32 inch.	13/16 inch.		
Staple Strength ..	..	..	..	Good.	Fair.	Fairly Good.	Fair.		
Regularity .. ..	..	..	..	Good.	Very irregular.	Regular.	Slightly irregular.		
Value above or below contract rate	..	..	..	Rs. 35 on Apr./May Broach.	Rs. 25 on.	Rs. 35 on.	Rs. 5 on.		
Basis .. ..	..	..	..	Rs. 183.	Rs. 232.	Rs. 203.	Rs. 225.		
Date of Valuation ..	..	..	..	1st May 1934.	3-7-35.	20-1-36.	28-6-37.		
Remarks .. ..	..	..	..	....	....	....	....		

\* The reports for 1933-34 and 1935-36 onwards are made by the mill supplying the sample.

Table 11.—SPINNING TEST RESULTS FOR WESTERNS COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Section.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*							YARN TEST RESULTS.						TEMPERATURE, (°F.)	RELATIVE HUMIDITY, (%)		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss, †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	Counts Actual.	Strength (lbs)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.	Evenness Class.	Steps per yard.				Turns per Inch Actual.
2251	Westerns	..	1077-31	30-1-31	20	10	12.0	8.0	0.1	10.4	6	100	0550	0.07	17.08	10.4	81.5	1039	128.0	2500	4	1.2	17.1	88	00	72
2251	Westerns	..	1032-31	1-5-31	24	..	..	..	..	32	176	0500	0.07	19.73	24.1	62.8	1513	100.8	2430	4	1.5	19.3	88	70	71	
2251	Westerns	..	1032-31	1-5-31	30	..	..	..	..	17	153	0750	0.04	23.11	29.3	47.5	1392	84.2	2407	5	1.2	22.3	88	00	70	
2710	Westerns	..	1071-35	20-0-35	30	..	..	..	..	30	151	0600	0.58	23.11	30.1	47.1	1418	87.2	2504	5	1.5	22.4	86	77	74	
2710	Westerns	..	1031-35	21-0-35	20	10	12.6	0.8	0.1	21.4	10	100	0630	0.33	17.08	19.6	85.0	1000	130.1	2500	4	2.0	17.1	87	74	70
2710	Westerns	..	1031-35	20-0-35	24	..	..	..	..	11	170	0600	0.32	19.72	23.1	07.1	1550	107.2	2530	4	1.8	19.0	87	74	81	
2710	Westerns	..	1071-35	20-0-35	30	..	..	..	..	30	151	0600	0.58	23.11	30.1	47.1	1418	87.2	2504	5	1.5	22.4	86	77	74	
3151	Westerns	..	1035-36	23-1-36	20	10	0.1	7.0	0.4	10.0	31	103	0550	0.05	17.08	20.5	07.5	1384	127.8	2560	4	1.2	17.2	88	00	70
3151	Westerns	..	1035-30	22-1-30	21	..	..	..	..	55	170	0550	0.07	19.73	21.5	52.5	1280	105.2	2504	4	1.2	19.0	89	00	69	
3151	Westerns	..	1035-30	23-1-30	30	..	..	..	..	20	112	0600	0.04	21.20	29.4	15.9	1310	83.2	2421	5	1.0	22.0	89	08	72	
3636	Westerns	..	1030-37	0-7-37	20	10	15.8	14.8	0.3	28.4	10	102	0350	0.05	17.08	20.3	71.2	1445	113.0	2283	4	1.2	17.3	87	77	78
3636	Westerns	..	1030-37	7-7-37	24	..	..	..	..	18	177	0400	0.00	19.73	24.3	57.2	1300	90.2	2361	4	1.0	10.1	85	80	78	

\* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for a bulk sample spun under mill conditions it would be less than shown here.

## 12.—MIRAJ COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
2532	Miraj	Shedbal	1933-34
2750	Miraj	Shedbal	1934-35
3270	Miraj	Shedbal	1935-36
3687	Miraj	Shedbal	1936-37

### I.—SPINNING TESTS.

#### 1. Treatment :—

(a) *Blow-room.*—1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :—

	MIRAJ.			
	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. .. .	Creamy-white.	Creamy-white.	Creamy-white.	Creamy-white.
Cleanliness .. .. .	Leafy.	Leafy.	Leafy.	Fairly leafy.
Feel .. .. .	Soft silky.	Poorish feel.	Good.	Good.
Ginning and neppiness ..	Well-ginned.	Somewhat knotted.	Somewhat knotted.	Well-ginned.
Seeds .. .. .	1% partly-ginned.	..	..	..
Card sliver .. .. .	Clean.	Almost clean.	Almost clean.	Good ; a little leafy.
Card web .. .. .	Even and nep-free.	Good.	Good.	Good ; nep-free.
Weight of 10 flat strips ..	15.5 grams.	16.3 grams.	15.0 grams.	20.0 grams.
Remarks .. .. .	..	..	..	..

##### (b) Yarn :—

	MIRAJ.			
	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness .. .. .	Almost clean.	Almost clean.	Almost clean.	Fairly clean.
Evenness .. .. .	Fairly even.	Even.	Even.	Even.
Noppiness .. .. .	Free of nep.	Nep-free.	Practically free of nep.	Free of nep.
Slubbiness .. .. .	..	..	A little slubby.	..

#### 3. Spinning Test Details and Results :—See Table 12 on page 115.

## II.—GRADER'S REPORT\* FOR SURAT COTTON.

SURAT.									
		1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.		
Contract valued under	..	Broach.	F. G. M. G. Broach Hedge Contract No. 2.	Broach July/Aug. 1934.	Broach July/Aug. 1935.	April/May Broach 1936.	Broach April/May 1937.		
Class	..	..	Superfine.	Superfine.	Superfine.	Fine to S. Fine.	Fine to Superfine.		
Colour	..	..	Clean white.	White; bright.	White.	White to Creamy-white.	White.		
Staple Length	..	..	15/16" average.	31/32".	15/16".	Full 31/32".	15/16".		
Staple Strength	..	..	Good.	Good.	Very good.	..	Good.		
Regularity	..	..	Even.	Very regular.	Regular.	Regular.	Regular.		
Value above or below contract rate	..	..	Rs. 59 on.	Rs. 72 on.	Rs. 93 on.	Rs. 50 on.	Rs. 60 on.		
Basis	..	..	F. G. M. G. Broach Contract No. 2 April/May, Rs. 182.	Rs. 198.	Broach July/Aug. 1935.	Rs. 203.	Rs. 230.		
Date of Valuation	..	..	18-4-33.	30-5-34.	..	20-4-36.	4-5-37.		
Remarks	..	..	..	..	..	..	Contains little peppery leaf and yellow stains.		

\* Report since 1932-33 is made by the Mill supplying the sample.

Table 13.—SPINNING TEST RESULTS FOR SURAT COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.).	RELATIVE HUMIDITY(%).					
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 spindles per hour.	Front Roller speed R.P.M.	Spindle speed R.P.M.	Draft.	Turns per inch.	LEA.			BALANCE.			Twists per inch Actual.			Levelling Class.	Neeps per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.
															Counts Actual.	Strength (lbs.)	Count-Strongth Product.	Work of Spindle (inch-lb.)	Count-Work Product.									
1075	Surat.	1930-31	10-6-31	24	8	8.2	6.6	0.7	14.8	20	182	9800	5.01	10.73	23.7	63.2	1408	24.5	103.2	2528	4	0.7	18.7	92	60	85		
1075	Surat.	1930-31	10-6-31	30		..	..	..	..	40	188	9850	7.43	23.11	30.1	40.3	1394	30.5	81.8	2495	5	0.5	22.0	92	68	86		
1747	Surat.	1932-33	28-4-33	24	10	6.4	7.4	0.5	13.8	08	178	9600	5.55	10.73	23.0	65.5	1505	24.2	100.0	2505	3	1.2	19.3	87	64	09		
1747	Surat.	1932-33	2-5-33	30		..	..	..	..	80	103	10500	6.89	23.11	30.3	42.7	1294	20.7	82.4	2447	4	2.0	22.6	89	67	66		
2278	Surat.	1933-34	16-5-34	20	10	5.8	8.5	0.3	14.0	5	196	9000	5.01	17.08	20.2	85.0	1735	19.8	135.8	2689	3	1.0	17.1	89	67	60		
2278	Surat.	1933-34	16-5-34	24		..	..	..	..	27	178	9550	5.42	10.73	23.8	69.3	1656	23.9	108.2	2586	4	1.2	18.8	90	68	68		
2278	Surat.	1933-34	16-5-34	30		..	..	..	..	13	162	9550	6.58	21.86	20.5	51.4	1510	20.0	87.6	2540	5	1.2	20.9	90	67	70		
2752	Surat.	1934-35	24-6-35	20	10	6.6	7.9	0.2	14.1	0	105	9550	6.05	17.08	20.5	88.7	1818	20.4	140.4	2884	..	..	17.3	85	79	73		
2752	Surat.	1934-35	25-6-35	24		..	..	..	..	18	179	9550	5.45	10.73	23.6	73.7	1730	23.2	124.0	2877	4	1.2	18.9	86	72	70		
2752	Surat.	1934-35	25-6-35	30		..	..	..	..	17	169	9000	6.71	21.86	20.7	52.4	1556	20.5	94.4	2785	4	1.5	20.8	87	73	72		
3142	Surat.	1935-36	17-4-36	20	10	4.4	7.0	0.3	11.3	0	192	9300	5.95	17.08	20.5	78.8	1615	20.3	127.8	2594	3	1.2	17.3	88	70	70		
3142	Surat.	1935-36	16-4-36	24		..	..	..	..	14	174	9500	5.33	10.73	22.9	73.6	1683	22.8	116.2	2640	4	0.8	18.0	88	66	74		
3142	Surat.	1935-36	16-4-36	30		..	..	..	..	17	144	8550	6.76	21.86	30.1	47.2	1421	30.8	86.2	2655	5	1.5	20.8	87	64	73		
3577	Surat.	1936-37	22-4-37	20	10	6.6	8.2	0.3	14.5	5	191	9300	0.14	17.08	20.0	61.0	1838	20.1	134.4	2701	3	1.2	17.3	90	67	66		
3577	Surat.	1936-37	22-4-37	24		..	..	..	..	18	170	9400	5.31	19.73	24.2	70.2	1690	24.0	114.0	2786	3	1.5	19.0	90	68	66		
3577	Surat.	1936-37	23-4-37	30		..	..	..	..	7	100	9450	6.87	21.86	30.0	51.7	1551	30.4	90.0	2786	4	1.2	20.9	91	67	65		

\* Diameter of ring frame front roller— $\frac{1}{8}$ ". Diameter of ring— $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

### 14.—NAVSARI COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)
1076	Navsari	1930-31	11
1778	"	1932-33	20
3141	"	1935-36	11
3683	"	1936-37	11

#### I. SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room*.—1930-31:—Porcupine, Crighton (once only), Hopper, Scutcher (3 times).

1932-33 :—As above but two passages in the Crighton.

1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1932-33:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1935-36 and 1936-37:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

(a) *Cotton* :—

					NAVSARI.			
					1930-31.	1932-33.	1935-36.	1936-37.
Colour	..	..	..	..	White ; Bright.	White ; very bright.	White ; Bright.	White.
Cleanliness	..	..	..	..	Fairly clean.	Fairly clean.	Clean.	A little leafy ; a trifle stained.
Feel	..	..	..	..	Good-bodied.	Silky and bodied.	Good.	Good bodied.
Ginning and Neppiness	..	..	..	..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	..	..	..	..	0.5% unginned.	....	....	....
Card Sliver	..	..	..	..	Clean ; silky.	Clean and full.	Clean.	Good.
Card Web	..	..	..	..	Very good.	Even and nep-free.	Even and nep-free.	Good ; a little neppy.
Weight of 10 flat strips	..	..	..	..	6.5 grams ; very light.	15.1 grams.	11.7 grams.	22.2 grams.
Remarks	..	..	..	..	8 lbs. sample.	....	....	....

(b) *Yarn* :—

					NAVSARI.			
					1930-31.	1932-33.	1935-36.	1936-37.
Cleanliness	..	..	..	..	Clean.	Clean.	Clean.	A little leafy.
Evenness	..	..	..	..	Even.	Fairly even.	Even in the lower counts.	Even.
Neppiness	..	..	..	..	Free of nep.	Free of nep.	Almost free of nep.	A little neppy.
Slubbiness	..	..	..	..	....	....	....	....
Remarks	..	..	..	..	....	....	....	....

3. *Spinning Test Details and Results* :—See Table 14 on page 120.

# II.—GRADER'S REPORT FOR NAVSARI COTTON.

H. GRADLER'S ALL COTTON TRADES										1930-31.										1932-33.*										1935-36.*										1936-37.									
Contract valued under										Broach.										F.G.M.G. Broach Hedge Contract No. 2.										April/May Broach 1936.										Broach July/Aug. 1937.									
Class										Fine.										Strict fine.										Fine to S. Fine.										Fine to superfine.									
Colour										White.										Clean white.										White to Creamy-white.										White.									
Staple Length										1 1/8".										1 1/8".										Full 1".										15/16".									
Staple Strength										Fair.										Good.										Regular.										Good.									
Regularity										Fair.										Good.										Regular.										Regular.									
Value above or below contract rate										Rs. 90 on.										Rs. 50 on.										Rs. 55 on.										Rs. 65 on.									
Basis										Rs. 100.										July/August Rs. 205.										Rs. 203.										Rs. 207.									
Date of Valuation										10-6-31.										20-5-33.										20-4-36.										22-7-37.									
Remarks										....										....										....										....									

\* Reports for 1932-33 and 1935-36 are made by the mill supplying the sample.

Table 14.—SPINNING TEST RESULTS FOR NAVSARI COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	RING FRAME PARTICULARS. *						YARN TEST RESULTS.						TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)	20	21	22	23	24	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				Yarn Breakages per 100 Spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	L.S.A.			HALF-DOZ.			Revolutions Class.	Reps per yard.	Turns per inch. Actual.	Spinning Room.	Testing Room.	25	26	27	28	29	30			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †						Counts Actual.	Strength (lbs.)	Count-Strain Product.	Counts Actual.	Work of Inception (inch-lb.)	Count-Work Product.														
1070 Navsari ..	1930-31	10-6-31	10-6-31	24	8	0.2	7.0	0.0	13.0	5	182	9500	5.81	10.73	23.1	60.0	1593	23.5	103.2	2425	4	1.5	10.1	92	67	Spinning Room.	Testing Room.	25	26	27	28	29	30	
1070 " ..	1930-31	10-6-31	10-6-31	30	..	..	..	..	..	30	153	9950	7.50	23.11	30.5	44.0	1342	30.6	80.4	2400	5	1.2	22.4	92	68									
1778 Navsari ..	1932-33	24-5-33	24-5-33	24	10	7.5	8.3	0.4	15.5	65	179	9700	5.32	10.73	23.7	60.2	1509	23.4	110.0	2588	4	1.0	18.9	80	69									70
1778 " ..	1932-33	27-5-33	27-5-33	30	..	..	..	..	..	33	157	9700	6.84	23.11	30.0	45.3	1359	20.7	82.2	2411	5	1.5	22.3	90	67	68	Spinning Room.	Testing Room.	25	26	27	28	29	30
3141 Navsari ..	1935-30	15-4-30	15-4-30	20	10	3.1	7.1	0.3	10.0	10	102	9350	6.85	17.08	10.0	87.8	1747	10.7	136.0	2091	3	1.0	17.5	90	67	71								
3141 " ..	1935-36	15-4-36	15-4-36	24	..	..	..	..	..	23	177	9150	5.08	10.73	23.8	60.0	1685	23.0	112.0	2043	4	1.2	10.1	88	66	72								
3141 " ..	1935-30	15-4-36	15-4-36	30	..	..	..	..	..	10	144	8700	7.13	21.80	20.5	47.0	1413	30.0	80.2	2070	5	1.2	21.4	89	66	74	Spinning Room.	Testing Room.	25	26	27	28	29	30
3083 Navsari ..	1936-37	1-7-37	1-7-37	20	10	5.1	10.1	0.5	15.1	10	208	10200	6.07	17.08	10.0	90.7	1024	10.0	146.0	2005	3	2.0	17.3	88	76	78								
3083 " ..	1936-37	2-7-37	2-7-37	24	..	..	..	..	..	32	103	10500	5.45	10.73	23.0	70.5	1870	24.0	120.0	2380	4	2.5	19.2	80	75	80								
3083 " ..	1936-37	2-7-37	2-7-37	30	..	..	..	..	..	26	150	9450	6.30	21.80	20.1	50.1	1720	30.0	93.4	2802	4	2.8	21.1	87	70	84	Spinning Room.	Testing Room.	25	26	27	28	29	30
3083 " ..	1936-37	2-7-37	2-7-37	30	..	..	..	..	..	26	150	9450	6.30	21.80	20.1	50.1	1720	30.0	93.4	2802	4	2.8	21.1	87	70	84								
3083 " ..	1936-37	2-7-37	2-7-37	30	..	..	..	..	..	26	150	9450	6.30	21.80	20.1	50.1	1720	30.0	93.4	2802	4	2.8	21.1	87	70	84								

\* Diameter of ring frame front roller—1 1/2". Diameter of spindles—1 1/2".  
† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.



### 15 (a).—TIRUPPUR CAMBODIA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1077	Tiruppur Cambodia .. ..	1930-31.
1748	Tiruppur Cambodia .. ..	1932-33.
2277	Tiruppur Cambodia .. ..	1933-34.
2753	Tiruppur Cambodia .. ..	1934-35.
3269	Tiruppur Cambodia .. ..	1935-36.

#### I.—SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room*: Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). In 1930-31, it was passed only once thro' the Crighton.

1934-35 and 1935-36 : Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*: Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 and 1935-36 : As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

(a) *Cotton* :—

	TIRUPPUR CAMBODIA.				
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.
Colour .. ..	Creamy-white to creamy.	Creamy-white ..	White to creamy-white.	White to creamy-white; bright.	White to creamy-white.
Cleanliness .. ..	Fairly clean; occasional stain.	Clean .. ..	Fairly clean; occasionally stained.	Clean .. ..	Fairly clean; slightly stained.
Feel .. ..	Good-bodied ..	Good soft ..	Good smooth ..	Good bodied ..	Softish.
Ginning and Neppiness ..	Well-ginned, but slightly neppy.	Well-ginned ..	Slightly knotted in ginning.	Fairly well-ginned.	A little knotted.
Seeds .. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Card Sliver .. ..	Clean .. ..	Soft and clean ..	Almost clean ..	Clean and soft ..	Almost clean.
Card Seb .. ..	A little neppy and cloudy.	A trifle both neppy and uneven.	Neppy .. ..	Somewhat neppy and uneven.	Somewhat neppy.
Weight of 10 flat strips	19.0 grams.	25.8 grams.	26.5 grams	28.3 grams	20.1 grams.
Remarks .. ..	.. ..	.. ..	Well-watered ..	.. ..	Well-watered at the time of pressing.

(b) *Yarn* :—

	TIRUPPUR CAMBODIA.				
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.
Cleanliness .. ..	Fairly clean ..	Almost clean ..	Almost clean ..	Clean .. ..	A little leafy.
Evenness .. ..	Even .. ..	Even .. ..	Even .. ..	Even .. ..	Even.
Neppiness .. ..	A little neppy ..	A little neppy ..	Somewhat neppy.	Neppy .. ..	Neppy.
Slubbiness .. ..	.. ..	.. ..	Somewhat slubby.	.. ..	Fairly slubby.
Remarks .. ..	.. ..	.. ..	.. ..	.. ..	.. ..

3. *Spinning Test Details and Results*.—See Table 15 (a) on page 123.

## II.—GRADER'S REPORT\* FOR TRUPPUR CAMBODIA COTTON.

TRUPPUR CAMBODIA.						
1930-31.			1932-33.	1933-34.	1934-35.	1935-36.
Contract valued under	..	..	Broach.	Broach July/Aug. 1931.	Broach July/Aug. 1935.	Broach.
Class .. ..	..	..	Fine.	White; bright.	Good.	Fully good to fine.
Colour .. ..	..	..	Clean creamy-white.	Very clean.	White creamy.	Creamy.
Staple Length ..	..	..	31/32" average.	Full 31/32".	31/32".	Barely 31/32".
Staple Strength ..	..	..	Good.	Good.	Very good.	Good.
Regularity .. ..	..	..	Even.	Very even.	Regular.	Regular.
Value above or below contract rate ..	..	..	Rs. 60 on.	Rs. 70 on.	Rs. 88 on.	Rs. 45 on.
Basis .. ..	..	..	F. G. M. G. Broach Contract No. 2 April/May, Rs. 182.	Rs. 198.	Broach July/Aug. 1935.	Broach July/Aug. 1936.
Date of Valuation ..	..	..	18-4-33.	30-5-34.	..	15-7-36.
Remarks .. ..	..	..	Silky.	..	..	..

\* Report since 1932-33 is made by the mill supplying the sample.

Table 15 (a)—SPINNING TEST RESULTS FOR TRUPPUR CAMBODIA COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	RING FRAME PARTICULARS. *										YARN TEST RESULTS.										TEMPERATURE AND RELATIVE HUMIDITY (%).	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.).	WASTE PERCENTAGES.				Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	I.M.A.			D.M.E.T.S.G.			Keps per yard.	Turns per Inch actual.	Spiraling Room.	Spiraling Room.	RELATIVE HUMIDITY (%).											
						Blow Room Loss.	Card Room Loss.	Spiraling Loss.	Total Loss.†						Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.).	Count-Work Product.																
1077	Cambodia	1930-31	11-6-31	24	8	6.0	10.5	0.6	16.4	5	181	9760	0.18	10.73	25.2	56.5	1424	24.0	98.2	2445	4	3.2	18.0	92	66	68										
1077	Cambodia	1930-31	11-6-31	30						16	164	9800	7.85	23.11	20.6	47.0	1409	30.3	84.8	2569	5	3.2	22.3	91	64	68										
1748	Cambodia	1932-33	28-4-33	24	10	5.3	12.0	0.5	17.1	45	178	9600	5.00	10.73	23.0	50.5	1422	23.8	105.8	2518	3	2.0	10.0	87	64	68										
1748	Cambodia	1932-33	2-5-33	30						70	163	10500	7.03	23.11	30.1	43.1	1297	30.4	70.0	2402	4	3.5	22.6	80	67	68										
2277	Cambodia	1933-34	10-5-34	20	10	5.3	13.2	0.3	18.1	10	196	9600	6.10	17.08	20.0	82.2	1614	20.0	132.0	2640	3	3.8	17.2	89	67	70										
2277	Cambodia	1933-34	10-5-34	24						0	178	9560	0.22	10.73	23.0	67.0	1601	24.4	103.8	2533	4	1.0	18.0	90	68	70										
2277	Cambodia	1933-34	10-5-34	30						13	162	9550	7.03	21.80	30.7	15.0	1409	30.3	83.2	2491	5	3.2	21.2	90	67	69										
2753	Cambodia	1934-35	24-6-35	20	10	6.2	14.2	0.4	19.8	5	194	9500	6.10	17.08	10.7	90.2	1695	19.8	137.8	2728	3	5.0	17.4	83	66	69										
2753	Cambodia	1934-35	26-6-35	24						27	180	9650	5.33	10.73	23.7	72.8	1725	23.7	116.0	2719	4	5.8	19.1	87	70	74										
2753	Cambodia	1934-35	26-6-35	30						23	161	9650	6.71	21.80	20.2	55.4	1618	29.7	90.0	2691	4	0.0	21.0	87	70	74										
3269	Cambodia	1935-36	11-7-36	20	10	7.6	10.3	0.3	16.9	21	180	9500	6.22	17.08	10.9	89.5	1781	19.8	127.8	2530	3	1.8	17.2	87	71	72										
3269	Cambodia	1935-36	15-7-36	24						9	174	9650	5.07	10.73	23.7	69.6	1650	23.0	105.0	2510	4	4.2	19.1	88	71	73										
3269	Cambodia	1935-36	15-7-36	30						17	150	9550	7.03	21.80	30.0	51.1	1533	20.7	84.0	2513	5	5.0	21.1	87	73	73										

\* Diameter of ring frame front roller—f". Diameter of ring—1-f".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

### 15 (b).—TIRUPPUR CAMBODIA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
2373	Cambodia	Tiruppur	1933-34
2745	Cambodia	Tiruppur	1934-35
3149	Cambodia	Tiruppur	1935-36
3684	Cambodia	Tiruppur	1936-37

#### I. SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room*.—1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust; Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

(a) *Cotton* :—

	TIRUPPUR CAMBODIA.			
	1933-34.	1934-35.	1935-36.	1936-37.
Colour .. ..	Creamy-white; bright.	White to creamy-white; brightish.	White to creamy-white; brightish.	Creamy.
Cleanliness .. ..	Clean; somewhat stained.	Clean with occasional stains.	Clean.	Fairly clean; a little stained.
Feel .. ..	Good smooth.	Good smooth.	Good smooth.	Soft.
Ginning and neppiness ..	Slightly knotted.	Fairly well-ginned.	Fairly well-ginned.	Well-ginned.
Seeds .. ..	..	..	..	..
Card Sliver .. ..	Clean and soft.	Clean.	Clean.	Clean.
Card Web .. ..	Cloudy and neppy.	Slightly neppy and uneven.	Slightly neppy.	Very neppy; cloudy.
Weight of 10 flat strips ..	24.7 grams.	20.7 grams.	20.3 grams.	37.4 grams.
Remarks .. ..	..	..	..	Abnormally heavy strips.

(b) *Yarn* :—

	TIRUPPUR CAMBODIA.			
	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness .. ..	Almost clean.	Almost clean.	A little leafy.	A little leafy.
Evenness .. ..	Even in the two lower counts.	Fairly even.	Fairly even.	Fairly even.
Neppiness .. ..	Neppy.	Neppy.	Neppy.	Very neppy.
Slubbiness .. ..	Slubby.	A little slubby.	..	..

3. *Spinning Test Details and Results* :—See Table 15 (b) on page 125.

# II.—GRADER'S REPORT\* FOR TIRUPPUR CAMBODIA.

		TIRUPPUR CAMBODIA.									
		1933-34.*					1934-35.				
		1935-36.*					1936-37.				
Contract valued under		Broach.	July/Aug. Broach.	Broach April/May.	July/Aug. Broach.						
Class ..	..	Fully good.	Fine.	Fine.	Fine.						
Colour ..	..	Creamy.	Creamy-white.	Creamy-white.	Creamy-white.						
Staple Length ..	..	31/32 inch.	31/32 inch.	15/16 inch.	15/16 inch.						
Staple Strength ..	..	Good.	Very Good.	Good.	Good.						
Regularity ..	..	Good.	Good.	Regular.	Regular.						
Value above or below contract rate	..	Rs. 60 on.	Rs. 80 on.	Rs. 65 on.	Rs. 75 on.						
Basis ..	..	Rs. 203 July/Aug. Broach.	Rs. 232.	Rs. 225.	Rs. 225.						
Date of Valuation	..	9-7-34.	3-7-35.	20-4-36.	28-6-37.						
Remarks ..	..	..	..	..	..						

\* The reports for 1933-34 and 1935-36 onwards are compiled by the mill supplying the sample.

Table 15 (b).—SPINNING TEST RESULTS FOR TIRUPPUR CAMBODIA.

Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE.		RELATIVE HUMIDITY.	
				Blow Room Loss.	Cord Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakages per 100 spindles	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	Counts Actual.	Strength (lbs.)	Count-Strain†	Count-Work Product.	Liveries Chgs.	Reps per yard.	Turns per inch Actual.	Spinning Room.	Spinning Room.
				Weight of Sample (lbs.)	Counts Nominal.																
2373	Tiruppur Cambodia.	1933-34	9-7-34	10	20	0.6	18.4	5	200	9800	6.25	17.08	20.0	85.0	1078	2476	3	3.8	17.0	86	75
2373	Tiruppur Cambodia.	1933-34	16-7-34	..	24	..	..	14	179	9000	5.54	16.73	24.0	86.3	1611	2586	4	3.2	18.7	87	70
2373	Tiruppur Cambodia.	1933-34	16-7-34	..	30	..	..	30	166	9000	6.70	21.86	30.1	46.0	1453	2426	5	3.5	20.8	87	78
2745	Tiruppur Cambodia.	1934-35	18-6-35	10	20	6.7	26.6	26	168	9800	6.10	17.08	21.3	80.3	1702	2903	4	4.2	17.3	86	82
2745	Tiruppur Cambodia.	1934-35	18-6-35	..	24	..	..	11	182	9800	5.55	19.73	23.0	76.2	1692	2765	4	5.0	19.0	89	80
2745	Tiruppur Cambodia.	1934-35	18-6-35	..	30	..	..	13	166	9800	6.64	21.86	36.0	52.7	1606	2754	5	5.2	21.2	90	80
3140	Tiruppur Cambodia.	1935-36	17-4-36	10	20	4.5	14.1	10	161	9300	6.07	17.08	16.8	89.0	1768	2922	3	4.2	17.4	89	72
3140	Tiruppur Cambodia.	1935-36	20-4-36	..	24	..	..	18	174	9350	5.53	19.73	24.8	68.1	1689	2862	4	4.5	16.1	86	72
3140	Tiruppur Cambodia.	1935-36	21-4-36	..	30	..	..	7	162	9000	6.80	21.86	29.0	52.2	1550	2703	5	4.5	21.5	88	72
3684	Tiruppur Cambodia.	1936-37	3-7-37	10	20	5.8	24.2	10	210	16280	5.98	17.08	20.3	90.5	1810	2939	1	8.2	17.2	85	70
3684	Tiruppur Cambodia.	1936-37	3-7-37	..	24	..	..	5	163	16200	5.01	16.73	23.7	71.7	1609	2376	4	7.2	18.8	87	82
3684	Tiruppur Cambodia.	1936-37	3-7-37	..	30	..	..	10	160	1600	6.07	21.86	26.0	54.2	1616	2630	5	7.0	20.7	87	86

\* Diameter of ring frame front roller—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for a bulk sample spun under mill conditions it would be less than shown here.

## 16.—HUBLI KUMPTA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)	Sample No.	Cotton.	Season.	Weight (lbs.)
1020	Hubli Kumpta	1930-31	12	2692	Hubli Kumpta	1934-35	11
1332	"	1931-32	12	3160	"	1935-36	11
1742	"	1932-33	12	3573	"	1936-37	11
2229	"	1933-34	11				

### I. SPINNING TESTS.

#### 1. Treatment :—

(a) *Blow-room.*—Upto 1934-35 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).  
1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.  
1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :—

		HUBLI KUMPTA.						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	.. ..	Creamy-white.	Dullish creamy-white.	White to creamy-white.	Dullish-white to creamy-white.	White to creamy-white.	White to creamy-white.	Creamy-white to white.
Cleanliness	.. ..	Slightly stained, leafy.	..	Dull; leafy.	Leafy (fine leaf).	Leafy.	Leafy.	Fairly leafy.
Feel	.. ..	Good.	..	Good.	Good.	Good.	Good.	Fairly good.
Ginning and Neppiness.	.. ..	Well-ginned.	Somewhat knotted.	Fairly well-ginned.	Well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.
Seeds	.. ..	..	0.8% ginned and unginned besides undeveloped seeds.	..	..	..	..	..
Card Sliver	.. ..	Fairly clean.	A little leafy.	Almost clean.	Clean.	Clean.	Almost clean.	Clean.
Card Web	.. ..	Good.	Good.	Good.	Even; neppy.	Good.	Good.	Good.
Weight of 10 flat strips.	.. ..	10.7 grams.	14.7 grams.	13.9 grams.	14.7 grams.	13.1 grams.	11.6 grams.	12.5 grams.
Remarks	.. ..	Fully pressed.	..	..	..	..	..	..

##### (b) Yarn :—

		HUBLI KUMPTA.						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	.. ..	Clean.	Almost clean.	Clean.	Almost clean.	Clean.	Clean.	A little leafy.
Evenness	.. ..	Even.	Even.	Fairly even.	Even.	Fairly even.	Even.	Even.
Neppiness	.. ..	Practically nep-free.	Nep-free.	Free of nep.	Practically nep-free.	Almost free of nep.	Almost free of nep.	Almost free of nep.
Slubbiness	.. ..	..	..	..	..	..	..	..
Remarks	.. ..	..	..	..	..	..	..	..

3. *Spinning Test Details and Results.*—See Table 16 on page 128.

## II.—GRADER'S REPORT\* FOR HUBLI KUMPTA COTTON.

HUBLI KUMPTA.									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under	..	Kumpta.	Broach Kumpta.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	
Class	..	Fully good.	Fully good.	Fully good.	Fully good.	Strictly fully good.	Fully good.	Fully good.	F. G. M. G. Broach April/May 1937.
Colour	..	Slight tinge.	Slight cream.	Brownish-white.	Brownish-white.	Rich Brownish white.	Whitish brown.	Whitish brown.	Fully good.
Staple Length	..	15/16".	29/32".	7/8".	7/8"	29/32".	3/4".	29/32".	Whitish brown.
Strength	..	Fair.	Fair.	Fair.	Fair.	Good.	Poor.	Good.	Good.
Regularity	..	Fair.	Fair.	Regular.	Regular.	Regular.	Irregular.	Good.	Good.
Value above or below contract rate	..	Pass.	Rs. 30 on.	Rs. 22 on.	Rs. 30 on.	Rs. 60 to Rs. 65 above.	Rs. 30 above.	Rs. 25 above.	Rs. 250.
Basis	..	Rs. 250.	Rs. 168.	Rs. 177.	Rs. 105.	Rs. 215.	Rs. 200.	Rs. 250.	Rs. 250.
Date of Valuation	..	15-4-31.	16-5-32.	18-1-33.	9-1-34.	6-3-35.	29-1-36.	6-1-37.	6-1-37.
Remarks	..	..	..	..	..	..	..	..	..

\* Report since 1933-34 is made by the Mill supplying the sample.

Table 16.—SPINNING TEST RESULTS FOR HUBLI KUMPTA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller speed R.P.M.	Spindle speed R.P.M.	Draft.	Turns per inch.	Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.	Evenness Class.		Neeps per yard.	Turns per inch Actual.	Spinning Room.	Spinning Room.
1020	Hubli Kumpta.	1930-31	10-4-31	20	10	11.9	8.2	0.0	19.6	10	106	9700	6.10	17.98	19.7	81.5	1618	19.7	117.0	2395	3	1.7	17.1	87	64	68
1020	Hubli Kumpta.	1930-31	11-4-31	24		..	..	..	..	10	180	9790	5.81	10.73	23.5	96.0	1550	23.5	190.4	2350	4	2.0	19.0	80	62	68
1020	Hubli Kumpta.	1930-31	11-4-31	30		..	..	..	..	30	161	9700	7.39	23.11	30.2	49.3	1413	29.8	82.9	2461	5	1.5	22.0	88	99	60
1332	Hubli Kumpta.	1931-32	11-6-32	20	10	14.1	9.6	0.6	21.0	55	186	9200	5.83	17.98	20.4	96.8	1363	19.9	110.6	2201	3	0.8	17.4	89	67	98
1332	Hubli Kumpta.	1931-32	12-3-32	24		..	..	..	..	39	173	9390	5.68	10.73	21.0	69.0	1311	24.2	95.0	2314	3	1.0	19.0	90	90	66
1332	Hubli Kumpta.	1931-32	12-6-32	30		..	..	..	..	40	136	8050	7.14	23.11	29.5	41.4	1221	30.1	77.2	2324	5	1.2	22.3	90	67	07
1742	Hubli Kumpta.	1932-33	22-4-33	24	10	12.3	9.7	0.6	20.6	75	172	9359	5.87	19.73	23.7	59.4	1408	23.1	98.4	2303	4	0.8	10.2	90	65	66
1742	Hubli Kumpta.	1932-33	24-4-33	30		..	..	..	..	79	138	8850	7.34	23.11	30.1	40.0	1291	30.1	70.6	2399	5	1.5	22.2	80	63	68
2229	Hubli Kumpta.	1933-34	13-4-34	20	10	11.1	0.4	0.1	19.8	31	189	9290	5.81	17.98	20.0	85.1	1798	20.0	123.6	2472	3	1.2	17.3	83	67	70
2229	Hubli Kumpta.	1933-34	14-4-34	24		..	..	..	..	95	170	9109	5.70	19.73	21.0	61.0	1558	21.3	102.0	2493	1	1.0	19.1	87	99	68
2229	Hubli Kumpta.	1933-34	16-4-34	30		..	..	..	..	13	150	9300	7.11	23.11	20.0	49.8	1461	20.7	84.0	2495	5	1.2	22.3	87	67	69
2692	Hubli Kumpta.	1934-35	11-3-35	20	10	11.1	7.7	0.3	18.2	10	193	9300	6.19	17.98	20.4	99.9	1071	20.5	131.3	2702	3	1.2	17.3	81	66	68
2692	Hubli Kumpta.	1934-35	12-3-35	24		..	..	..	..	4	188	10250	5.52	19.73	24.1	77.1	1858	24.3	110.4	2833	4	1.0	19.9	82	07	69
2692	Hubli Kumpta.	1934-35	12-3-35	30		..	..	..	..	7	162	10200	6.92	23.11	30.5	59.3	1717	30.0	89.4	2762	5	1.5	22.3	91	05	66
3190	Hubli Kumpta.	1935-36	27-4-36	20	10	0.9	7.3	0.2	16.7	10	192	9450	6.10	17.98	10.8	85.0	1695	20.6	114.4	2357	3	1.2	17.2	87	66	72
3160	Hubli Kumpta.	1935-36	28-4-36	24		..	..	..	..	14	170	9600	5.43	19.73	24.0	64.0	1350	23.0	100.2	2305	4	1.5	18.0	87	95	71
3160	Hubli Kumpta.	1935-36	29-4-36	30		..	..	..	..	17	150	9600	0.71	23.29	28.9	52.5	1317	29.1	84.4	2491	4	1.2	22.2	87	65	70
3573	Hubli Kumpta.	1936-37	16-4-37	20	10	11.9	8.2	0.4	10.4	21	200	10150	5.03	17.08	20.2	89.3	1801	20.1	124.4	2600	3	0.8	17.1	90	07	66
3573	Hubli Kumpta.	1936-37	16-4-37	24		..	..	..	..	18	190	10290	5.20	19.73	24.0	74.8	1705	24.1	105.6	2345	3	1.2	18.0	90	97	68
3573	Hubli Kumpta.	1936-37	17-4-37	30		..	..	..	..	23	160	9609	6.63	21.86	29.0	64.0	1598	29.0	88.2	2637	4	1.0	20.0	90	67	68

\* Diameter of ring frame front roller:  $\frac{1}{8}$ ". Diameter of rings:  $\frac{1}{8}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.



### 17.—HUBLI UPLAND COTTON.

These samples have been tested by arrangement with the Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)	Sample No.	Cotton.	Season.	Weight (lbs.)
1021	Hubli Upland	1930-31	12	2230	Hubli Upland	1933-34	11
1333	"	1931-32	12	2763	"	1934-35	11
1743	"	1932-33	12	3161	"	1935-36	11

#### I. SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 and 1935-36 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 and 1935-36 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

##### (a) Cotton :—

		HUBLI UPLAND.					
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.
Colour .. ..	..	Creamy-white; slightly bright.	Creamy-white.	White to creamy-white; fairly bright.	Creamy-white.	White to creamy-white.	Creamy-white.
Cleanliness .. ..	..	A little leafy.	Fairly leafy.	A little leafy.	A little leafy.	A little leafy.	Leafy.
Feel .. ..	..	Good softish.	Softish.	Good.	Poorish soft.	Good.	Softish.
Ginning and Neppiness	..	Knotted due to ginning.	A good deal knotted.	Nepped and knotted.	Well-ginned.	Somewhat knotted.	Somewhat knotted in ginning.
Seeds .. ..	..	..	A few undeveloped besides 0.9% partly ginned and clean seeds.	..	..	..	..
Card Sliver .. ..	..	Clean.	Fairly clean.	Almost clean.	Clean.	Clean.	Almost clean.
Card Web .. ..	..	A trifle neppy and cloudy.	Good.	A little neppy.	Cloudy.	Somewhat neppy.	Somewhat neppy.
Weight of 10 flat strips	..	18.3 grams.	18.5 grams.	20.9 grams.	19.0 grams.	31.3 grams.	15.8 grams.
Remarks .. ..	..	Fully pressed.	..	..	..	..	..

##### (b) Yarn :—

		HUBLI UPLAND.					
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.
Cleanliness .. ..	..	Fairly clean.	Fairly clean.	Clean.	Clean.	A little leafy.	Almost clean.
Evenness .. ..	..	Even.	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Fairly even.
Neppiness .. ..	..	Almost nep-free	Almost nep-free	Almost free of nep.	Almost free of nep.	Neppy.	Almost free of nep.
Slubbiness .. ..	..	..	..	A trifle slubby.	..	..	..
Remarks .. ..	..	..	..	..	..	..	..

##### 3. Spinning Test Details and Results.—See Table 17 on page 131.

## II.—GRADER'S REPORT\* FOR HUBLI UPLAND COTTON.

HUBLI UPLAND.					
1930-31.		1931-32.	1932-33.	1933-34.	1934-35.
Contract valued under	..	Kumpla.	Bronoh Kumpla.	F. G. M. G. Broach.	F. G. M. G. Broach.
Class	..	Fully good.	Better fully good.	Fine.	Aug. delivery.
Colour	..	Slight tinge.	White.	Dull white.	Barely fine.
Staple Length	..	7/8".	7/8".	3/4".	Pure white.
Strength	..	Fair.	Poor.	Weak.	27/32" to 28/32".
Regularity	..	Fair.	Fair.	Rather irregular.	Fairly strong.
Value above or below contract rate	..	Rs. 10 off.	Rs. 25 on.	Rs. 20 on.	Fairly regular.
Basis	..	Rs. 250.	Rs. 160.	Rs. 195.	Par to Rs. 5 on.
Date of Valuation	..	15-1-31.	16-5-32.	9-1-34.	Rs. 228.
Remarks	..	..	..	..	20-6-35.
					..

\* Report since 1933-34 is made by the Mill supplying the sample.

Table 17.—SPINNING TEST RESULTS FOR HUBLI UPLAND COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.).	RELATIVE HUMIDITY. (%)			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.	Evenness Class.				Neps per yard.	Turns per inch Actual.
1021	Hubli Upland..	1930-31.	10-4-31	20	10	0.1	10.1	0.7	18.8	10	100	9700	0.67	17.08	20.0	75.2	1501	19.5	123.2	2102	3	1.2	17.0	87	61	71
1021	Hubli Upland..	1930-31.	11-1-31	24						32	180	9700	5.68	19.73	22.3	61.0	1121	22.8	105.0	2304	4	2.2	18.0	80	62	70
1021	Hubli Upland..	1930-31.	11-4-31	30						57	161	9700	7.30	23.11	30.2	42.8	1293	29.3	82.0	2403	5	2.7	22.1	88	66	67
1333	Hubli Upland..	1931-32.	11-6-32	20	10	11.1	10.2	0.0	20.6	41	186	9200	5.95	17.98	20.2	58.8	1188	20.1	112.0	2231	4	1.5	17.1	89	07	67
1333	Hubli Upland..	1931-32.	12-5-32	24						72	173	9300	5.68	19.73	21.5	48.8	1147	21.5	90.4	2215	1	1.2	19.1	80	06	67
1743	Hubli Upland..	1932-33.	24-1-33	20	10	10.0	11.3	0.5	20.9	68	188	9350	5.08	17.98	19.9	63.1	1355	19.9	113.0	2249	4	1.8	17.4	80	04	66
1743	Hubli Upland..	1932-33.	24-4-33	24						01	173	9100	5.98	19.73	23.8	54.1	1295	24.1	94.6	2280	5	1.2	19.0	87	02	69
2230	Hubli Upland..	1931-34.	13-4-31	20	10	7.2	10.8	0.5	17.0	36	180	9200	5.83	17.98	19.7	62.8	1237	19.8	115.8	2293	4	1.5	17.3	88	07	69
2230	Hubli Upland..	1933-34.	14-4-31	24						161	170	9100	5.08	19.73	21.0	41.2	1001	24.1	94.0	2295	5	1.5	18.0	87	00	68
2703	Hubli Upland..	1934-35.	20-6-35	20	10	8.8	15.3	0.0	24.1	47	180	8750	5.81	17.98	19.4	61.1	1249	19.5	127.0	2488	1	3.2	17.2	88	70	78
2703	Hubli Upland..	1934-35.	27-6-35	24						68	100	8900	6.22	20.74	23.7	51.7	1225	23.2	105.6	2450	5	4.0	20.2	88	72	78
3101	Hubli Upland..	1935-36.	30-4-36	20	10	0.3	8.7	0.4	17.5	16	195	9550	0.07	17.98	20.1	60.0	1339	19.0	120.0	2470	1	1.0	17.2	88	08	70
3101	Hubli Upland..	1935-36.	29-4-36	24						41	175	9000	5.54	19.73	21.7	61.8	1228	23.7	101.2	2408	4	1.5	18.0	87	60	71
3101	Hubli Upland..	1935-36.	29-4-30	30						20	140	9150	6.89	21.20	29.8	40.0	1210	29.1	84.6	2492	5	1.2	22.2	86	07	69

• Diameter of ring frame front roller—7". Diameter of disc—1 1/2".

\* Diameter of ring frame front roller— $\frac{1}{2}$ ". Diameter of rings— $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## 18.—KAMPALA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
2754	Kampala (African)	1934-35.
3266	Kampala ( „ )	1935-36.
3578	Kampala ( „ )	1936-37.

### I. SPINNING TESTS.

#### 1. Treatment.—

(a) *Blow-room*.—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice). In 1934-35, the sample was not passed through Horizontal cleaner and was passed through the Scutcher three times; otherwise its treatment was the same as for the 1935-36 and 1936-37 samples.

(b) *Card-room*.—Card, Drawing (2 heads), Slubber, Inter, Rove and spun from single hank roving on Ring Frame No. 3.

#### 2. Spinning Master's Report:—

##### (a) Cotton:—

	KAMPALA.		
	1934-35.	1935-36.	1936-37.
Colour .. .. .	White to creamy-white; bright.	White to creamy-white; bright.	White to creamy-white.
Cleanliness .. .. .	Very clean.	Very clean.	Clean.
Feel .. .. .	Good silky.	Smooth and bodied.	Good soft.
Ginning and Neppiness .. .. .	Well-ginned.	Somewhat knotted and strung.	Well-ginned.
Seeds .. .. .	.. .. .	.. .. .	.. .. .
Card sliver .. .. .	Clean and silky.	Clean and silky.	Clean; silky.
Card web .. .. .	Even and nep-free.	Good.	Good.
Weight of 10 flat strips .. .. .	22.5 grams.	21.8 grams.	17.1 grams.
Remarks .. .. .	.. .. .	.. .. .	.. .. .

##### (b) Yarn:—

	KAMPALA.		
	1934-35.	1935-36.	1936-37.
Cleanliness .. .. .	Clean.	Clean.	Clean.
Evenness .. .. .	Even.	Even.	Even.
Neppiness .. .. .	Somewhat neppy—small neps.	A little neppy.	Almost free of nep.
Slubbiness .. .. .	.. .. .	.. .. .	.. .. .

#### 3. Spinning Test Details and Results.—See Table 18 on page 133.

# II—GRADER'S REPORT FOR KAMPALA COTTON.

KAMPALA.												
1931-35.				1935-36.				1936-37.				
Contract valued under	..	..	..	Broach July/August 1935.	Broach.	..	..	Broach April/May 1937.	..	..	..	..
Class ..	..	..	..	Good.	Fine but little stained.	..	..	Fully good to fine.	..	..	..	..
Colour ..	..	..	..	Creamy-white; silky.	White.	..	..	White creamy.	..	..	..	..
Staple Length ..	..	..	..	1½".	1½".	..	..	1½".	..	..	..	..
Staple Strength	..	..	..	Good.	Very good.	..	..	Good.	..	..	..	..
Regularity ..	..	..	..	Regular.	Regular.	..	..	Regular.	..	..	..	..
Value above or below contract rate	..	..	..	Rs. 129/- on.	Rs. 121/- on.	..	..	Rs. 190/- on.	..	..	..	..
Basin ..	..	..	..	Broach July/August 1935.	Broach July/August 1936.	..	..	Rs. 230.	..	..	..	..
Date of Valuation	..	..	..	..	15.7.36.	..	..	1.5.37.	..	..	..	..
Remarks	..	..	..	..	..	..	..	..	..	..	..	..

Table 18.—SPINNING TEST RESULTS FOR KAMPALA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE AND HUMIDITY (%).	
				Flow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakage per 100 spindles per hour.	Front Roller Speed H.P.M.	Sizable Speed H.P.M.	Draft.	Turns per inch.	I.Z.A.			DRAUGHTS.			Twists (T.M.).	Temp. per yard.	Turns per inch Actual.	Spinning Room.	Finishing Room.
													Counts Actual.	Strength (lbs.).	Count Strength Product.	Counts Actual.	Work of Machine (multipl.).	Count Work Product.					
2754	Kampala..	1934-35	27-6-35	3.1	11.7	0.2	14.6	0	186	9700	5.81	17.93	20.4	211.6	4317	3	3.5	17.1	68	70	70	70	
2754	Kampala..	1934-35	1-7-35	..	..	..	..	3	126	9900	6.41	21.56	29.0	126.0	2351	4	4.5	21.1	86	75	82	82	
2754	Kampala..	1934-35	29-6-35	..	..	..	..	7	141	9700	8.15	25.23	33.9	99.0	3153	5	5.8	21.3	88	74	80	80	
3260	Kampala..	1935-36	7-7-36	2.3	11.1	0.2	13.1	6	201	10300	0.10	17.94	20.6	175.0	2617	3	2.5	17.3	87	73	70	70	
3260	Kampala..	1935-36	10-7-36	..	..	..	..	3	129	10200	0.51	21.66	29.4	109.6	3131	4	3.0	21.2	87	72	72	72	
3260	Kampala..	1935-36	11-7-36	..	..	..	..	5	140	10100	8.39	25.23	40.9	74.0	3037	6	3.2	24.7	89	71	63	63	
3578	Kampala..	1936-37	23-4-37	4.4	10.2	0.2	14.3	0	223	10250	6.25	16.85	20.8	158.6	3199	2	0.8	16.2	90	63	63	63	
3578	Kampala..	1936-37	24-4-37	..	..	..	..	10	183	10250	6.03	20.74	30.6	97.8	2993	3	1.0	20.0	90	68	66	66	
3578	Kampala..	1936-37	26-4-37	..	..	..	..	2	147	9500	8.83	23.70	30.7	73.6	2922	5	1.5	23.3	89	67	67	67	

\* Diameter of ring frame front roller—1½".

\* Diameter of ring frame front roller—1½". Diameter of ring—11".  
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

### 19.—AFRICAN BUSOGA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1749 .. .. .	African Busoga .. .. .	1932-33
2755 .. .. .	African Busoga .. .. .	1934-35
3267 .. .. .	African Busoga .. .. .	1935-36
3579 .. .. .	African Busoga .. .. .	1936-37

#### I. SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room*.—1932-33 Sample :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice). The 1934-35 sample was not passed thro' the Horizontal cleaner and was passed through the Scutcher three times ; otherwise its treatment was the same as for the 1935-36 sample.

(b) *Card-room*.—1932-33 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

(a) *Cotton* :—

	AFRICAN BUSOGA.			
	1932-33.	1934-35.	1935-36.	1936-37.
Colour .. .. .	White to creamy-white.	White to creamy-white ; bright.	White to creamy-white ; brightish.	White to creamy-white ; bright.
Cleanliness .. .. .	Bright ; very clean.	Clean.	Clean.	Fairly clean.
Feel .. .. .	Soft silky.	Silky.	Soft silky.	Soft silky.
Ginning and neppiness ..	Well-ginned.	Somewhat knotted.	Slightly knotted in ginning.	Well-ginned.
Seeds .. .. .	..	..	..	..
Card sliver .. .. .	Clean.	Clean.	Clean.	Clean soft.
Card web .. .. .	Good.	Fairly neppy.	Somewhat cloudy and neppy.	Fairly good ; a trifle neppy.
Weight of 10 flat strips ..	18.2 grams.	30.3 grams.	24.6 grams.	..
Remarks .. .. .	..	Card sliver has a poorish soft and silky feel.	Fibres are irregular in length.	..

(b) *Yarn* :—

	AFRICAN BUSOGA.			
	1932-33.	1934-35.	1935-36.	1936-37.
Cleanliness .. .. .	Clean.	Clean.	Clean.	Clean.
Evenness .. .. .	Even.	Even.	Even.	Even.
Neppiness .. .. .	A trifle neppy.	Neppy.	Somewhat neppy.	Free of nep.
Slubbiness .. .. .	..	..	Occasionally slubby.	..
Remarks .. .. .	..	..	..	..

3. *Spinning Test Details and Results*.—See Table 19 on page 135.

# REPORT FOR AFRICAN BUSUGA COTTON.

AFRICAN BUSUGA.													
1932-33.				1934-35.				1935-36.				1936-37.	
Contract valued under ..	..	..	..	..	F. G. M. G. Broach Hedge Contract No. 2.	Broach July/August 1935.	Good.	Broach	..	..	..	..	..
Class ..	..	..	..	..	.. Fully good.	..	..	Fine but little stained	..	..	..	..	..
Colour ..	..	..	..	..	.. Creamy-white.	..	..	White.	..	..	..	..	..
Staple Length ..	..	..	..	..	.. 14".	..	..	14".	..	..	..	..	..
Staple Strength ..	..	..	..	..	.. Very good.	..	..	Very good.	..	..	..	..	..
Regularity ..	..	..	..	..	.. Good.	..	..	Very regular.	..	..	..	..	..
Value above or below contract rate ..	..	..	..	..	.. Rs. 118 on.	..	..	Rs. 120 on.	..	..	..	..	..
Basis ..	..	..	..	..	.. F. G. M. G. Broach Contract No. 2.	Broach July/August 1935.	..	Broach July/August 1936, Rs. 240.	..	..	..	..	..
Date of Valuation ..	..	..	..	..	.. April/May Rs. 182.	..	..	15-7-36.	..	..	..	..	..
Remarks ..	..	..	..	..	.. 18-4-33.	..	..	..	..	..	..	..	..

Table 19.—SPINNING TEST RESULTS FOR AFRICAN BUSUGA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal	Weight of Sample (lbs.).	WASTE PERCENTAGES.				RING SPINNING PARTICULARS.*				YARN TEST RESULTS.								TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	L.S.A.			BALTIMORE.			Keps per yard.			Turns per inch Actual.	Spinning Room.	Testing Room.
															Counts Actual.	Strength (lbs).	Count-Strength Product.	Counts Actual.	Work (inch-lb.).	Count-Work Product.						
1740	African Busoga.	1932-33	1-5-33	40	10	4.4	9.3	0.4	13.0	27	141	9700	9.14	25.28	39.1	42.2	1050	39.1	77.0	3074	5	1.8	24.0	88	04	71
1749	African Busoga.	1932-33	3-5-33	50	..	..	..	..	..	22	130	10800	11.35	29.00	50.0	29.8	1508	49.8	59.0	2038	5	2.5	23.8	90	07	00
2765	African Busoga.	1934-35	27-6-35	20	10	3.4	14.7	0.4	18.0	16	107	9700	5.93	17.98	20.2	119.2	2408	20.5	200.2	4289	3	8.3	17.1	88	73	78
2705	African Busoga.	1934-35	28-6-35	30	..	..	..	..	..	7	164	9700	0.50	21.80	28.6	75.5	2174	20.9	125.4	3749	4	8.0	21.3	88	71	80
2765	African Busoga.	1934-35	28-6-35	40	..	..	..	..	..	13	143	9800	8.89	25.28	29.0	47.3	1873	40.5	80.4	3409	5	7.5	24.0	88	72	78
2507	African Busoga.	1935-30	8-7-30	20	10	5.0	14.4	0.3	10.4	21	202	10250	5.05	17.08	20.0	102.0	2114	20.4	177.8	3627	3	1.8	17.2	87	78	68
3207	African Busoga.	1935-30	10-7-30	30	..	..	..	..	..	17	169	10800	6.41	21.80	20.0	70.0	2087	20.7	108.8	3231	4	2.2	20.0	80	72	74
3207	African Busoga.	1935-30	9-7-30	40	..	..	..	..	..	0	140	10400	8.02	25.28	30.0	45.3	1807	30.8	81.3	3232	5	2.8	24.3	87	74	72
3070	African Busoga.	1936-37	29-4-37	20	10	5.3	10.1	0.3	10.2	0	224	10160	6.19	10.85	20.8	102.3	2123	20.9	153.8	3214	2	0.8	10.4	80	00	08
3879	African Busoga.	1936-37	27-4-37	30	..	..	..	..	..	13	183	10200	0.05	20.74	30.1	70.0	2107	30.0	105.6	3168	3	0.8	10.4	00	08	06
3870	African Busoga.	1936-37	27-4-37	40	..	..	..	..	..	0	147	9500	8.23	23.70	30.5	44.5	1758	30.5	70.0	3020	4	1.0	23.1	89	09	06

\* Diameter of ring frame front roller—1½". Diameter of ring—1½". Diameter of sample spun under mill conditions it would be less than shown here.

† It is to be noted that the total loss is for a small sample weighing 10 lbs. for bulk sample spun under mill conditions it would be less than shown here.

## 20.—JINJA COTTON.

These samples have been tested by arrangement with the Bombay Mill-owners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
3268	Jinja (African).	1935-36.
3580	Jinja (African).	1936-37.

### I. SPINNING TESTS.

#### 1. Treatment :—

(a) *Blow-room.*—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).

(b) *Card-room.*—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3.

#### 2. Spinning Master's Report.

##### (a) Cotton :—

	JINJA (AFRICAN).	
	1935-36.	1936-37.
Colour.	White to creamy-white; bright.	White to creamy-white; bright.
Cleanliness.	Fairly clean.	Clean.
Feel.	Soft smooth.	Good soft.
Ginning and Neppiness.	A good deal knotted in ginning.	Fair.
Seeds.	..	..
Card sliver.	Clean, soft and silky.	Soft silky.
Card web.	A little neppy and cloudy.	Fairly good; nep free.
Weight of 10 flat strips.	31.1 grams.	16.3 grams.
Remarks.	..	Good cling.

##### (b) Yarn :—

	JINJA (AFRICAN).	
	1935-36.	1936-37.
Cleanliness.	Clean.	Clean.
Evenness.	Even.	Even.
Neppiness.	Neppy.	Almost free of nep.
Slubbiness.	A little slubby.	

#### 3. Spinning Test Details and Results :—See Table 20 on page 137.



## II.—GRADER'S REPORT FOR JINJA (AFRICAN) COTTON.

JINJA (AFRICAN).	
1935-36.	1936-37.
Contract valued under.	Broach.
Class.	Fully good to fine.
Colour.	Creamy.
Staple Length.	1 $\frac{1}{2}$ "
Staple Strength.	Good.
Regularity.	Irregular.
Value above or below Contract rate.	Rs. 185 on.
Basis.	Broach April/May 1937, Rs. 230.
Date of Valuation.	4-5-37.
Remarks.	..

Table 20.—SPINNING TEST RESULTS FOR JINJA (AFRICAN) COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts of Sample (lbs.).	WASTE PERCENTAGES.				RING SPINNING PARTICULARS.*				YARN TEST RESULTS. BALANCECO.						TEMPERATURE ATONE (°F.).	RELATIVE HUMIDITY (%).							
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (lb.-lb.).				Count-Work Product.	Evenness Class.	Reps per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.
3263	Jinja (African).	1935-36	8-7-36	20	16	6.2	17.5	0.4	22.6	21	266	16300	6.07	17.08	20.6	98.0	2037	20.7	172.0	3560	3	3.5	17.1	86	76	70	
3269	Jinja (African).	1935-36	8-7-36	36		..	..	..	..	0	170	16500	6.58	21.86	30.4	66.0	2006	30.1	108.0	3251	4	4.2	20.6	87	73	74	
3268	Jinja (African).	1935-36	9-7-36	40		..	..	..	..	10	147	16150	6.67	25.28	40.5	42.6	1725	40.6	70.6	3256	5	4.0	24.1	86	73	72	
3580	Jinja (African).	1936-37	28-4-37	20	16	5.2	16.1	6.3	15.0	0	220	16100	5.81	16.85	20.6	113.7	2331	20.4	181.0	3062	2	1.0	16.3	60	68	67	
3680	Jinja (African).	1936-37	28-4-37	20		..	..	..	..	3	182	16250	6.05	20.74	28.3	76.3	2169	28.3	118.0	3330	4	1.5	10.0	89	66	66	
3690	Jinja (African).	1936-37	29-4-37	46		..	..	..	..	7	146	6560	8.30	23.79	39.6	46.6	1800	40.1	80.6	3256	5	1.0	22.0	89	60	67	

\* Diameter of ring frame front roller— $\frac{1}{2}$ ". Diameter of rings— $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

## JAGADIA COTTON.

These samples have been tested by arrangement with the Ahmedabad Millowners' Association, Ahmedabad, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1010	Jagadia	1930-31
1317	Jagadia	1931-32
1779	Jagadia	1932-33
2375	Jagadia	1933-34
2124	Jagadia	1935-36

## TECHNOLOGICAL REPORTS

ON

### COTTONS SUPPLIED BY

### THE AHMEDABAD MILLOWNERS' ASSOCIATION.

The samples supplied through this Association are restricted to only three cottons, *viz.*, Jagadia, Bawla and Kadi. They also represent early arrivals of the crop in each season. The valuation reports of these samples were also made by the Grader (Major Ellis Jones) upto 1931-32 and thereafter the mills supplying the samples were requested to send their own valuation reports.

	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.
Colour .. ..	White; bright.	White.	White to creamy white; bright.	White; bright.	White; bright.	White to creamy white; bright.
Cleanliness ..	A little leafy.	Fairly clean.	Fairly clean.	Fairly clean.	Clean.	Some leaf; a trifle stained.
Feel .. ..	Soft and silky.	Soft silky.	Good soft.	Good smooth.	Smooth bodied.	Soft.
Ginning and Noppiness	Very well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds .. ..	.. ..	.. ..	1.1 per cent.	.. ..	.. ..	.. ..
Card Sliver ..	Clean.	Almost clean.	Almost clean, soft and full.	Almost clean.	Clean.	Fairly clean.
Card Web ..	First class.	Even and free of nep.	Even and nep free.	Good.	Even and nep free.	Fair; a trifle neppy.
Weight of 10 flat strips.	11.2 grams.	15.2 grams.	17.8 grams.	22.6 grams.	14.0 grams.	11.6 grams.
Remarks ..	Staple regular in length and of good strength.	.. ..	.. ..	.. ..	.. ..	.. ..

(b) Yarn :—

	JAGADIA.					
	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.
Cleanliness ..	Clean.	Clean.	Clean.	Almost clean.	Clean.	Almost clean.
Evenness ..	Even.	Fairly even.	Fairly even.	Even.	Even.	Even.
Neppiness ..	Practically free of nep.	Almost free of nep.	Fairly free of nep.	Almost free of nep.	Almost free of nep.	Slightly neppy.
Slubbiness ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Remarks ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..

Spinning Test Details and Results.—See Table 1. on page 140.

## II.—GRADER'S REPORT\* FOR JAGADIA COTTON.

	1930-31.	1931-32	1932-33.	1933-34.	1935-36.	1936-37.
Contract valued under ..	.. Broach.	Broach.	Broach.	Broach.	Broach.	Broach.
Class ..	.. Fine.	Fine.	Fine.	Fine.	Fine.	Fine.
Colour ..	.. White.	White.	Creamy-white.	Creamy-white.	White.	White.
Staple Length ..	.. 1 1/16 inch.	1 inch.	31/32 inch.	1 inch.	1 inch.	1 1/32 inch.
Staple Strength ..	.. Fair.	Fair.	Fair.	Good.	Fair.	Good.
Regularity ..	.. Fair.	Fair.	Fair.	Fair.	Fair.	Fair.
Value above or below Contract rate ..	.. Rs. 65.70 on.	Rs. 50 on.	Rs. 10.8 on.	Rs. 48 on.	Rs. 32 on.	Rs. 26.0.6.
Basis ..	.. Rs. 205.	Rs. 170.	Rs. 172.8.0.	Rs. 202.	Rs. 196.	Rs. 226.4.0.
Date of Valuation ..	.. 26-3-31.	5-5-32.	3-4-33.	16-3-34.	10-2-36.	20-1-37.
Remarks ..	..	..	Soft silky feel.	..	..	..

\* Report since 1932-33 is made by the mill supplying the sample.

Table 3.—SPINNING TEST RESULTS FOR JAGADIA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	LEA.			DALLASTIC.			Evenness Class.	Neps per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.		
															Counts Actual.	Strength (lbs.).	Count-Strength Product.	Work of Rupture (inch-lb.).	Count - Work Product.								
1010	Jagadia.	1930-31	25-5-31	20	8	7.1	8.0	0.5	13.8	25	196	9950	6.38	17.08	20.5	75.6	1530	113.2	2309	3	1.7	17.1	86	68			
1010	Jagadia.	1930-31	26-5-31	30A						64	150	9100	7.08	21.86	30.1	42.3	1273	76.4	2345	4	1.5	21.1	86	65			
1010	Jagadia.	1930-31	25-5-31	30B						28	156	9900	7.29	23.11	30.2	45.6	1377	78.4	2384	4	2.0	22.0	86	67			
1317	Jagadia.	1931-32	3-5-32	24	10	8.8	8.4	0.6	16.0	40	178	9650	6.50	19.73	24.7	52.0	1284	94.0	2204	4	1.2	19.3	88	65			
1317	Jagadia.	1931-32	4-5-32	30B						53	152	9700	6.86	23.11	30.1	40.8	1228	78.8	2330	5	2.2	22.2	90	66			
1779	Jagadia.	1932-33	24-5-33	24	10	9.4	9.3	0.6	18.3	32	179	9700	5.33	19.73	23.6	65.7	1551	104.0	2406	4	1.5	18.9	80	69			
1779	Jagadia.	1932-33	24-5-33	30A						90	155	9400	6.58	21.86	29.1	47.8	1391	86.4	2508	5	2.0	21.1	90	68			
1779	Jagadia.	1932-33	25-5-33	30B						83	160	9700	6.76	23.11	29.3	48.1	1418	86.1	2519	5	2.5	22.3	96	70			
2375	Jagadia.	1933-34	10-7-34	20	10	10.0	11.2	0.5	20.5	36	196	9600	5.93	17.08	20.3	62.6	1271	112.6	2229	3	1.5	17.1	87	76			
2375	Jagadia.	1933-34	11-7-34	24A						86	170	9160	6.10	19.73	24.0	49.1	1186	91.4	2101	4	1.8	19.0	86	74			
2375	Jagadia.	1933-34	11-7-34	24B						73	177	9900	6.10	20.74	24.1	51.3	1236	94.8	2237	4	1.5	20.0	86	78			
3164	Jagadia.	1935-36	5-5-36	20	10	5.3	8.1	0.3	13.3	10	193	9950	5.83	17.08	19.0	74.4	1481	113.6	2340	3	1.0	17.3	88	70			
3164	Jagadia.	1935-36	4-5-36	24						18	174	9550	5.33	19.73	23.3	61.3	1428	101.8	2463	4	1.2	19.1	88	70			
3164	Jagadia.	1935-36	4-5-36	30						20	144	8850	6.45	21.86	20.6	41.2	1220	80.6	2402	4	1.0	20.8	87	68			
3628	Jagadia.	1936-37	21-5-37	20	10	6.0	8.1	0.4	14.4	0	210	10250	5.03	17.08	20.2	89.2	1802	139.4	2788	3	2.2	17.2	90	66			
3628	Jagadia.	1936-37	22-5-37	24						14	180	10200	5.21	19.73	23.8	73.0	1752	116.8	2780	3	2.8	19.1	90	68			
5628	Jagadia.	1936-37	22-5-37	30						23	160	9600	6.58	21.86	29.7	54.2	1610	91.6	2675	5	2.0	21.1	89	68			

\* Diameter of ring frame front roller—7". Diameter of rings—14".  
† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

## 2.—BAWLA COTTON.

These samples have been tested by arrangement with the Ahmedabad Millowners' Association, Ahmedabad, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton	Season.	Sample No.	Cotton.	Season.
1011	Bawla ..	1930-31	3030	Bawla ..	1936-37.
2376	Bawla ..	1933-34			

### I.—SPINNING TESTS.

#### 1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).  
1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1936-37 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

#### 2. Spinning Master's Report :—

##### (a) Cotton :—

	BAWLA.		
	1930 31.	1933 34.	1936 37.
Colour .. .. .	White; bright.	White to creamy-white; bright.	White to creamy white, bright.
Cleanliness .. .. .	A trifle leafy.	A little leafy with occasional stains.	A little leafy; a little stained
Feel .. . . .	Good	Good smooth.	Good.
Ginning and Neppiness .. .. .	Very well ginned.	Well ginned	Well ginned
Seeds .. .. .	1% unginned.	..	..
Card sliver .. .. .	Clean	Almost clean.	Good, almost clean
Card web .. . . .	Very good	Full.	Good; nep free
Weight of 10 flat strips .. .. .	9.9 grams	19.2 grams.	15.0 grams.
Remarks .. .. .	..	..	..

##### (b) Yarn :—

	BAWLA.		
	1930 31.	1933-34	1936 37.
Cleanliness .. .. .	Clean	A little leafy.	Slightly leafy.
Evenness .. .. .	Even	Even in 20s only	Even
Neppiness .. .. .	Almost free of nep	A little neppy.	Fairly free of nep.
Slabbiness .. .. .	..	..	..

#### 3. Spinning Test Details and Results :—See Table 2 on page 142.

**BAYLA.**

\* Report since 1933-34 is made by the mill supplying the sample.

\* Report since 1930-34 is made by the unit supplying the average.

**It would be less than shown here.**

\* Diameter of ring frame front roller:  $\frac{1}{2}$ ". Diameter of rings:  $1\frac{1}{4}$ ".

**It would be less than shown here.**

### 3.—KADI COTTON.

These samples have been tested by arrangement with the Ahmedabad Millowners' Association, Ahmedabad, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1012	Kadi	1930-31
1318	Kadi	1931-32
2377	Kadi	1933-34
3165	Kadi	1935-36
3629	Kadi	1936-37

#### I.—SPINNING TESTS.

##### 1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1935-36 and 1936-37 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

##### 2. Spinning Master's Report :—

###### (a) Cotton :—

	Kadi.				
	1930-31.	1931-32.	1933-34.	1935-36	1936-37.
Colour .. .. .	White; bright	White; bright	Creamy-white	White to creamy white, brightish	White to creamy white.
Cleanliness .. .. .	Leafy	A trifle stained; fairly leafy.	Very leafy with occasional stains.	Leafy.	A little leafy, a trifle stained.
Feel .. .. .	Good	Good soft	Good	Good	Good
Ginning and Neppiness .. .. .	Very well ginned	Well ginned	Well ginned	Well ginned.	Fairly well-ginned
Seeds .. .. .	1% unginned	..	..	..	..
Card Sliver .. .. .	Clean	Almost clean	Almost clean	Almost clean	Good; almost clean.
Card Web .. .. .	Very good	Even and nep free.	Full	Even and nep free.	Good
Weight of 10 flat strips .. .. .	..	13.0 grams	20.7 grams	15.3 grams.	14.7 grams
Remarks .. .. .	..	..	..	..	Wasty in Blow room and card

###### (b) Yarn :—

	Kadi.				
	1930-31.	1931-32	1933-34.	1935-36	1936-37
Cleanliness .. .. .	Clean	Clean	Almost clean	Almost clean.	Almost clean.
Evenness .. .. .	Even	Fairly even	Even in the two lower counts.	Even.	Fairly even
Neppiness .. .. .	Almost free of nep.	Practically free of nep.	Almost free of nep.	Nep free.	Fairly free of nep
Slubbiness .. .. .	..	..	A trifle slubby.	..	..

##### 3. Spinning Test Details and Results :—See Table 3 on page 145.

## II. GRADER'S REPORT\* FOR KADI COTTON.

	Kadi.				
	1930-31.	1931-32.	1933-34.	1935-36.	1936-37.
Contract valued under	Broach ..	Broach/Dhollera ..	Broach ..	Broach ..	Broach.
Class	Fine ..	Fine ..	Fine ..	Fine ..	Fine.
Colour	White ..	White ..	White ..	White ..	Dull white.
Staple Length	11/16 inch ..	15/16 inch ..	15/16 inch ..	15/16 inch ..	15/16 inch.
Staple Strength	Fair ..	Fair ..	Fair ..	Fair ..	Fair.
Regularity	Fair ..	Fair ..	Fair ..	Fair ..	Fair.
Value above or below contract rate	Rs. 65.70 on ..	Rs. 15 on ..	Rs. 32.12 on ..	Rs. 7.8 on ..	Rs. 6-4-0 off.
Basis	Rs. 205 ..	Rs. 170 ..	Rs. 196 ..	Rs. 200 ..	Rs. 240-4-0.
Date of Valuation	26-3-31 ..	5-5-32 ..	23-4-34 ..	1-4-36 ..	2-4-37.
Remarks	..	..	..	..	..

\* Reports since 1933-34 are made by the mill supplying the sample.



Table 3.—SPINNING TEST RESULTS FOR KADI COTTON.

Sample No.	Region	Season	Date of Spinning	Counts-Minimal	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*								MAIN TEST RESULTS.										TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	Lvs.			Baristic.			Neeps per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.					
															Count-Strength Product.	Count Actual	Work of Machine (inch lb.)	Count-Work Product.	Levings Class.										
1015	Kadi	1930-31	26-3-31	20	8	10.2	7.9	0.9	18.1	57	182	8950	6.41	17.93	19.5	53.8	1161	10.9	103.5	2035	3	1.0	17.0	85	60	68			
1012	Kadi	1930-31	27-3-31	24	..	..	..	..	..	50	162	9200	6.54	20.74	21.3	42.0	1035	21.1	85.4	2038	4	1.5	19.8	85	67	64			
1018	Kadi	1931-32	1-5-32	23	10	10.5	7.9	0.7	18.1	105	194	9000	5.60	17.98	19.9	50.0	1156	20.3	101.4	2140	4	1.0	17.5	90	65	66			
1015	Kadi	1931-32	3-5-32	24	..	..	..	..	..	24	168	9050	6.54	20.74	23.2	50.8	1173	23.1	95.0	2150	5	1.5	20.3	90	65	64			
2377	Kadi	1933-34	11-7-34	20	10	11.2	10.8	0.7	24.0	29	105	9500	6.10	17.98	10.7	68.3	1310	10.9	118.6	2320	3	1.2	17.2	80	75	79			
2377	Kadi	1933-34	12-7-34	26	..	..	..	..	..	41	178	9050	5.43	19.73	23.7	55.6	1315	24.1	95.0	2290	4	1.5	18.0	80	74	80			
2377	Kadi	1933-34	13-7-34	28	..	..	..	..	..	50	151	9500	6.87	23.11	20.6	39.5	1190	29.6	75.4	2232	5	2.0	21.0	86	77	75			
3165	Kadi	1935-36	5-9-36	20	10	12.6	8.2	0.5	20.1	29	191	9700	5.83	17.98	10.6	68.5	1313	19.8	110.8	2313	3	0.5	17.5	87	69	70			
3165	Kadi	1935-36	5-9-36	24	..	..	..	..	..	41	174	9700	6.07	19.73	24.1	48.2	1162	23.2	97.4	2260	4	0.8	18.7	88	67	72			
3029	Kadi	1936-37	28-6-37	16	10	12.2	8.9	0.5	20.5	50	193	8700	4.14	15.97	10.6	66.1	1102	16.3	139.8	2279	3	1.8	15.2	89	69	67			
3029	Kadi	1936-37	24-6-37	20	..	..	..	..	..	42	193	8300	6.07	17.98	20.3	46.3	910	20.1	103.0	2050	4	1.8	17.0	90	69	66			

\* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

